

PERIODICAL ROOM
RECEIVED
JUN 12 1916
UNIV. OF MICHIGAN
LIBRARY

GIFT

California State Journal of Medicine

ISSUED MONTHLY: OWNED AND PUBLISHED BY THE
MEDICAL SOCIETY OF THE STATE OF CALIFORNIA

Vol. XIV, No. 6

JUNE, 1916

\$1.00 a Year

CONTENTS.

Editorial Notes	211
Malpractice Defense	211
Address of the President. By Harry M. Sherman, M. D.	215
Report of the Secretary. By Phillip Mills Jones	218
Report of the Council	218

Report of Committee on Effect of Athletics, Etc. By H. D'Arcy Power	220
Minutes of the House of Dele- gates, Fresno Meeting	221
Committees Appointed by the President, Dr. Kress	212
Registration at the Fresno Meeting	225
Conservation of Vision. By George H. Kress, M. D.	227
(Contents continued on page IX.)	

Human Cases of Rabies and Treatment. By J. C. Geiger, M. D.	230
Conservative Treatment of Frac- tures of Long Bones, Etc. By Jas. T. Watkins, M. D.	233
Large Cysts of the Bladder. By Henry Meyer, M. D.	237
Bacteriology of Nasal Sinus Disease. By John J. Kyle, M. D.	238

ENTERED AT SAN FRANCISCO, CAL. AS SECOND-CLASS MATTER

Graves' Gynecology

JUST OUT

This new work presents gynecology along new lines. An entire section is devoted exclusively to the *physiology* of the pelvic organs and to *correlated gynecology*—the relationship of gynecology to organs of *internal secretion*, breast, skin, organs of sense, digestion and respiration, blood, circulatory apparatus, abdominal organs, nervous system, bones, and joints. A special section is devoted to *enteroptosis*, intestinal bands, and movable kidney.

The second portion of the book is devoted to special gynecologic diseases and is arranged particularly for the convenience of medical students. Each disease is discussed according to the etiology, general pathology, symptomatology, diagnosis, and general treatment and management. The third part is exclusively a treatise on *surgical gynecology*, and includes profusely illustrated descriptions of those gynecologic operations that to the author seem most feasible. A number of new operations and modifications of older ones not in other books are given and illustrated.

Microscopic pathology is presented almost entirely by drawings with full legends made from sections from the author's collection of pathologic specimens. The book is illustrated with some 300 half-tone and line-drawings, made by the author, and by some 150 microscopic drawings. Many of the illustrations are in colors.

Large octavo of 750 pages, with 450 original illustrations, many in colors. By WILLIAM P. GRAVES, M.D., Professor of Gynecology at Harvard Medical School.

W. B. SAUNDERS COMPANY

PHILADELPHIA AND LONDON

FRANK F. WEDEKIND---TRUSSES, ELASTIC GOODS
ABDOMINAL SUPPORTERS

(SEE PAGE VIII)

SHERMAN'S BACTERINS



This entire Building used Exclusively for making
Sherman's Bacterins

*Preparations with
a Record for*

RELIABILITY

31 Different Varieties

TYPHOID FEVER

yields more readily to

TYPHOID VACCINE

than to any other remedy.
When given early it often
aborts the course of the disease.

Write for Literature

G. H. SHERMAN, M. D.
DETROIT, MICH.

*Daily Users of Vaccines
use Sherman's*

FRED I. LACKENBACH—Biologic Depot

908 BUTLER BLDG.

135 STOCKTON ST.

SAN FRANCISCO

Dr. H. M. Alexander & Co.

**Pasteur
Anti-Rabic Treatment**

Dr. H. M. Alexander & Co.

**Concentrated
Diphtheria Antitoxin**

Dr. H. M. Alexander & Co.

**Glycerinated
Vaccine Virus**

Dr. H. M. Alexander & Co.

**Immunizing
Typhoid Vaccine**



Produced under U. S. Government License No. 3
By Dr. H. M. Alexander & Co., Marietta, Pa.

Telegraph or Mail
your Orders to

FRED I. LACKENBACH

908 BUTLER BLDG.

SAN FRANCISCO

Pacific Coast Depot



California State Journal of Medicine.

Owned and Published Monthly by the

Medical Society of the State of California

PHILIP MILLS JONES, M. D., Secretary and Editor

PUBLICATION COMMITTEE

Harry E. Alderson, M. D.

René Bine, M. D.

Wm. P. Lucas, M. D.

Sol. Hyman, M. D.

Advertising Committee:

R. E. Bering, M. D., Chairman

Thos. E. Shumate, M. D.

ADDRESS ALL COMMUNICATIONS

Secretary State Society, - -

Butler Building,

State Journal, - - -

San Francisco.

Official Register, - - -

Telephone Douglas 2537

IMPORTANT NOTICE!

All Scientific Papers submitted for Publication must be typewritten.

Notify the office promptly of any change of address, in order that mailing list and addresses in the Register may be corrected.

VOL. XIV

JUNE, 1916

No. 6

EDITORIAL NOTES

MALPRACTICE DEFENSE.

In spite of the fact that the relation of the State Society to the various insurance companies and to its members has been repeatedly set forth, letters of inquiry are constantly being received. We would respectfully request all members to read very carefully the information published in the April Journal, particularly on pages 128 and 129, and on pages 132 and 133.

POORLY QUALIFIED.

The following letter, which is published exactly as written except that the names are not given, speaks for itself and shows more clearly than any mere discussion could show the way in which the present medical law and its administration are admitting very poorly qualified persons to practice upon the people of this State:

March 27th, 1916.

Dr. John Doe:

Dear Doctor—Your letter of the 25th, asking for information in regard to Dr. A. B. See, is received. He graduated from the Keokuk Medical College, Iowa, May 26, 1908. He applied for license in this State the same year, and at the examination in August failed with a mark of 58.3. On May 7, 1909, he called at our office and told me that he was licensed in Nevada, that Nevada reciprocated with 16 states, that he could practice there, and before long would come back here and be licensed under reciprocity. In May, 1909, he applied for reciprocity from Nevada with-

out result. He took the examination at Sacramento in December, 1913, and was rejected. He was licensed under reciprocity July 16, 1915, by the State Board of Medical Examiners of California.

This is a typical case of the manner in which the law regulating the practice of medicine in the State of California is being broken down: first, by influences lowering the standards required by law, and second, by the operations of the Board of Examiners in administering the law.

Cordially yours,

(Signed) PHILIP MILLS JONES,
Secretary.

PMJ:S

BREACH OF CONTRACT.

In a recent Bulletin of the Los Angeles County Association reference is made to a decision of the supreme court of Mississippi, abstract of which was published in the *Journal A. M. A.*, March 18, 1916, page 915. In this case a physician was held liable for not attending a woman in confinement when he had previously agreed to do so, for the reason that at the time when the woman was delivered he was employed in attending to another patient. This case is somewhat peculiar, and the decision against the physician was probably made for the reason that apparently he made no effort to send someone to take his place. This whole question of the right of a physician or patient to terminate the unwritten contract which exists between them is pretty well and clearly defined at law. The real basis of it may be said to be a matter of simple courtesy of one to the other. If a physician finds himself in a predicament of this kind, and is notified that a woman whom he has previously agreed to confine is about to be confined, and if he is in attendance upon another patient, he should immediately notify the woman to be confined, or her relatives or friends, and make some effort to see that she is properly cared for. The case cited would apparently come somewhat under the decision of the Flood case in this state, where the termination of services was abruptly performed by the physician and without due consideration for the patient.

CALIFORNIA SPRINGS.

The cry of "see America first" has been heard throughout the land. But the European war and the fear of submarines did more than any amount of advertising, to convince the traveling public of the wisdom of heeding the cry. So, too, with our mineral springs, with which this country, like Europe, is richly endowed. The waters of the European Spas can all be duplicated in the United States. Some of them are possibly superior to those of Europe. The great trouble with the springs in this country, is that no real effort has been made to induce people to go to them. In this State, we have no place that really meets the requirements of a first class resort. First class hotels, attractive grounds with an abundance of carefully laid-out walks, convenient drinking places,

proper bathing facilities, carefully planned institutions for hydro- and mechano-therapy,—all these are needed, if a resort is to attract people, or if it expects the support of the medical profession.

It is possible that the profession does not thoroughly appreciate the value of our mineral springs. Too often are we apt to attribute the benefit derived by patients at distant resorts to the change of climate, the interesting trip, the freedom from household or business worries or duties, discounting the effect of the waters, often because the drinking of the same waters after they have been bottled, is devoid of results. Recent observations would seem to lend truth to the belief that waters drunk or bathed in, at their source, are better by far than if the bottled product is used. The discovery of radium in many of the waters in the United States as well as in Europe explains why this may be true.

In Europe, the various municipal and state governments have done much to develop their resorts, not only because of the desire to lessen the suffering of humanity, but because of the revenue ultimately derived therefrom. A few years ago, the State of New York purchased Saratoga Springs. It obtained the services of experts to aid in the restoration of the springs which had suffered at the hands of near-sighted commercial interests. It has spent considerable money; it is to-day beginning to reap its reward; physicians are studying its waters; they expect to find that they are as efficacious as those of Nauheim, Vichy, Kissingen, etc. It will not be long before the cardiac, the nephritic, the gouty, the rheumatic, will be taught to "drink and bathe in America first."

In California we have numerous springs. None of them may be said to be properly managed. They not only lack many of the essentials necessary for successful handling of patients, but no attempt is made to run them on a scientific basis. By their extravagant claims and literature, they create distrust rather than confidence in the minds of the profession.

Might it not be well if our most active and very efficient State Board of Health, among its many other duties, took it upon itself to investigate our California springs, and make recommendations so as to induce private interests, or failing in this, perhaps the legislature, to improve our resorts and place them upon a proper basis.

R. B.

FIRST AID COMMITTEE.

Through an error contained in a circular of information which was received in the JOURNAL office, we published a statement in a recent issue of the JOURNAL, giving the erroneous personnel of the Committee on First Aid of the Medical Society of the State of California. The correction is here and now made. The committee appointed by the president of this society at the time, Dr. Harry M. Sherman, is as follows: L. P. Howe, San Francisco, chairman; E. A. Bryant, Los Angeles, and G. J. Bergener, San Francisco.

SOCIAL OR HEALTH INSURANCE.

As will be seen from the minutes of the House of Delegates at the Fresno meeting, published elsewhere in this issue of the JOURNAL, considerable attention was given to a discussion of this very important subject. The JOURNAL has previously called attention to the fact that in this State a commission to study the whole situation was authorized by the last legislature, and an appropriation of \$20,000 provided for the purpose. The members of this commission are: Miss Barbara Nachtrieb, secretary; Miss Katherine C. Felton, Mrs. Frances Noel, George Dunlop, Dr. Flora W. Smith and Paul Herriott. The American Medical Association, through its Committee on Health and Public Instruction, has created an office at 131 East 23rd Street, New York City, and has placed in charge of it, as Secretary of the committee, Dr. I. M. Rubinow. The purpose of this committee of the A. M. A. is to study thoroughly the whole situation and keep medical men in touch with what is going on. On another page of this issue will be found the first circular of information issued by this committee. The State Society, at the Fresno meeting, authorized the appointment of a committee of the society to confer with the State Commission, which committee is as follows: Dr. René Bine, San Francisco, chairman; Dr. F. F. Gundrum, Sacramento; Dr. Harry M. Sherman, San Francisco; Dr. George G. Reinle, Oakland; Dr. George E. Tucker, Riverside, and Dr. George H. Kress, Los Angeles.

COMMITTEES OF THE STATE SOCIETY.

The president, Dr. George H. Kress, of Los Angeles, has appointed committees as authorized by the House of Delegates at the Fresno meeting, as follows:

PUBLICATION COMMITTEE.

W. P. Lucas, San Francisco; Harry E. Alderson, San Francisco; Sol. Hyman, San Francisco, and René Bine, San Francisco.

COMMITTEE ON INDUSTRIAL ACCIDENT INSURANCE.

C. P. Thomas, Los Angeles, chairman; J. H. Graves, San Francisco; M. R. Gibbons, San Francisco; John C. King, Banning; B. F. Church, San Bernardino, and P. M. Jones, San Francisco.

DIFFICULT SITUATION.

Sometimes the surgeon is confronted by a legal problem of the greatest importance both to his patient and to himself. This is well illustrated in a recent case. The patient suffered from a brain tumor which had so far encroached upon brain tissue as to destroy all memory of recent occurrences, while in no way interfering with past impressions, and threatening loss of sight. To the casual observer he was perfectly sane and he repeatedly refused to consent to an operation. The consultants all recognized that an immediate operation was the only thing offering a possibility of saving his sight and perhaps restoring him to reasonable comfort. What should be done? Should the medical men and the surgeon, realizing the

importance to the patient of surgical interference with as little delay as possible, proceed to operate, or should they respect his irrational objection to the operation and allow the condition to proceed to its inevitably fatal termination? There is only one way in which a situation of this kind can with safety be handled. Application should be made to the superior court for the appointment of a guardian. Almost any judge of a superior court, if the circumstances are properly explained to him by reputable medical men, would appoint a guardian of the person of such patient and such guardian could then authorize the operation. If this is not done, no matter how successful the operation may be, if the patient on recovery saw fit to do so, he could bring suit against the surgeon for trespass upon his person and would be entitled to damages.

MANY THANKS!

May 13th, 1916.

My Dear Dr. Jones:

I have just a moment to spare in which to commend you in the zeal and activity manifested in getting "Dr." Hartland Law squelched in his advertising scheme connected with the State University; a good watchman you are on the tower and your success in this matter indicates that gray matter fearlessly used can triumph over foul smelling millions. May your good work be long felt and as similar things come with passing time I wish you the same success in dealing with them. No doubt the profession in all parts of the state will read with profound interest what you say of the case in the May JOURNAL.

Very sincerely yours,

A. B.

HELPFUL SUGGESTIONS.

At the Fresno meeting of the State Society a new plan of registration was put into effect. Instead of crowding around and awaiting an opportunity to sign a book, cards were supplied which could be filled out and handed in to the registration clerk. On these cards a space was provided with request for suggestions or recommendations. Something over 350 of these cards were filled out and handed in, and out of the whole number there were four on which, under this space for remarks and suggestions, comment appeared. In one case the suggestion was to change the time of meeting, which is established by the constitution and by-laws and a change in which has on several occasions been discussed by the House of Delegates and rejected. In two cases approval of the proposed indemnity fund was given. The remaining member—and may Heaven shine upon him for all the rest of his days!—merely said that he was satisfied with everything. If some of the members who talk amongst themselves, apparently objecting to almost everything, would only avail themselves of an opportunity of this kind and supply the office of the Society with helpful suggestions, their courtesy in so doing would be highly appreciated. As we have before remarked,

neither the Secretary nor anyone employed by the society happens to be a mind-reader.

A. M. A. DIRECTORY.

The last edition of the American Medical Association Directory was issued about the middle of April, and to anyone needing reference to the names of physicians throughout the United States it is practically invaluable. It is not at all difficult to master the signs and symbols used to indicate connection with societies, specialties, etc., and at a glance one may form a reasonably good idea of the character of a physician in almost any part of the United States. The Association is to be highly commended upon the publication of this invaluable work.

OWNERSHIP OF X-RAY PLATES.

This question has been raised repeatedly and presented itself at the Fresno meeting, as will be seen from the minutes of the House of Delegates. A careful search of the records of decided cases in this country reveals the fact that there has been made no decision covering this point. A few decisions in regard to photographs have been made, and these will be found, together with some comment on the subject, elsewhere in this issue of the JOURNAL. The matter of having in one's possession an X-ray plate of a fracture or a condition where the X-ray plate offers illuminating information, is of the greatest importance. It should be a fixed rule, never broken by any member of the society, to take or have taken and keep in his possession such X-ray plate or plates. He should not give them up under any circumstances, unless ordered to do so by a court and if such a condition should arise this society will handle the legal end of it.

A. M. A. LIBEL SUIT.

The widely celebrated suit against the *Journal of the American Medical Association* and its editor, Dr. George H. Simmons, by John A. Patten and the Chattanooga Medicine Company, is at least temporarily stopped owing to the death of Mr. John A. Patten. Whether or not the trial of the case will be resumed is uncertain. Mr. Patten died in a hospital in Chicago on April 26th and, as nearly as can be determined by the newspaper reports, from some intestinal complication. Those who have been following the transcript of the testimony, published from week to week in the *Journal A. M. A.*, will have noticed how heavily the case was going against the Wine of Cardui people.

THE "PRACTICAL NURSE" AGAIN.

Another suit for damages for alleged malpractice, which was tried and won by the defendant physician not very long ago, brings out very forcibly the danger to the physician when the patient is cared for by a "practical nurse." It is true that in many cases, particularly confinement cases, the patient cannot afford to employ the services of the trained nurse and therefore engages the

services of that anomalous article, the practical nurse. If you have to deal with one of this class, be very sure to keep carefully all records of the case, and take into your own possession for preservation any bedside charts that are used and any original written instructions or copies of them made at the time. The practical nurse is as a rule but once removed from the village gossip, and she can make more trouble for the physician by idle and unthinking chatter than one would imagine possible. Incidentally, in connection with this matter of keeping the records, it may be remarked that courts are beginning to look very unfavorably upon physicians who appear in such courts without full and careful records of the case or cases involved.

SCIENTIFIC ANACHRONISM.

Mr. Kipling's friend Mr. Mulvaney referred to the elephant as a "pachydermatous anachronism." There are such things as scientific anachronisms. Also, there is a very old saying that shoemakers' children go barefoot. You may wonder how an elephant and a shoemaker's child can in any way bear upon what is to follow. It is very easy. A supposedly modern, hyper-scientific teaching hospital allows student nurses to care for typhoid patients without previously having given or insisted upon giving to such students the typhoid prophylactic treatment!

SANITARY ENGINEERING.

A short time ago we published an article descriptive of the epidemic of typhoid fever in Santa Barbara, with an analysis of the situation and a very clear description of the water supply and its dangers. It is indeed a pleasure to note from a subsequent report from the Bureau of Sanitary Engineering and the Bureau of Communicable Diseases of the State Board of Health, that most sane and excellent recommendations have been made. In discussing the work on the tunnel through the mountains, which supplies a good part of Santa Barbara's water and eventually must supply it all, it is recommended in this joint report that all workmen be thoroughly examined before they are employed upon this work and at least quarterly thereafter. Also, it is recommended that all workmen, before being permitted to work upon this job, be given the typhoid prophylactic treatment. Of course the examination of prospective workmen would include a careful examination of their excreta in order to eliminate the possibility of employing a typhoid carrier. The recommendations of this joint committee of the State Board of Health must certainly be most highly commended. We believe that this is the first time, at least in the history of this State, that such a recommendation has been made.

BILLS AGAINST AN ESTATE.

Dr. Marxmiller of Los Angeles, in the Bulletin of the Los Angeles County Association, brings up the question of filing bills against the estates of deceased patients. There is a slight correction to be made in his statement that the bills must be

filed within four months. This applies only where the amount of the estate is less than \$10,000. If the estate exceeds in amount \$10,000, ten months are granted. The time runs from the first publication, as required by law, of the notice to creditors given by the executor or administrator. These notices are all of the same definite form, a sample of which is as follows:

NOTICE TO CREDITORS.

ESTATE OF JOHANNA KOZMINSKY,
Deceased.—No. 20679, N. S.—Dept. No. 9.

Notice is hereby given by the undersigned, David C. Kozminsky, executor of the last will and testament of Johanna Kozminsky, deceased, to the creditors of and all persons having claims against the said decedent, to file them with the necessary vouchers within ten (10) months after the first publication of this notice, in the office of the Clerk of the Superior Court of the State of California, in and for the City and County of San Francisco, or to exhibit them with the necessary vouchers within ten (10) months after the first publication of this notice to the said executor, at the office of his attorneys, Redman & Alexander, Room 1016, Mills Building, in the City and County of San Francisco, State of California, which last-named office the undersigned selects as his place of business in all matters connected with said estate of Johanna Kozminsky, deceased.

DAVID C. KOZMINSKY,

Executor of the Last Will and Testament of Johanna Kozminsky, Deceased.

Dated, San Francisco, California, April 6, 1916.

REDMAN & ALEXANDER, 1016 Mills Building, San Francisco, Attorneys for Executor.
Apr 7-5tF

SPLENDID WORK.

As an example of what the united efforts of any County Unit can accomplish in the way of library building, San Diego offers just now a forceful illustration. One year ago in March a small group of the local members of the County Medical Society incorporated themselves into a library association. By courtesy of the local Medical Society they were privileged to make use of the Society's rooms rent free. Without the actual possession of a single volume or a dollar of endowment they went about their task of library building. The prompt and generous way in which many private collections were contributed to the new movement gave it an early nucleus upon which to build. Entering on its second year, the San Diego Medical Library Association is a self-supporting organization of seventy-seven members, with a reading room equipped with seventy regularly appearing journals, and cases obtained by gift containing between 1400 and 1500 bound volumes of text-books and journal files. Their most practical asset, however, is a working system whereby, with the aid of their capable librarian, they can supplement their own meager possessions by drafts upon the courtesy of well-established libraries, thus enabling them to assemble promptly the literature on any desired subject. The monthly increase of the demands upon the librarian's time for such service speaks well for the appreciation of the movement on the part of the local profession. We wish our San Diego members continued success in their enterprise.

ADDRESS OF THE PRESIDENT.*

HARRY M. SHERMAN, M. D., San Francisco.

Fellow Members of the Medical Society of the State of California:

It would be a most ungracious thing if I did not here reiterate the appreciation I expressed two years ago in Santa Barbara when you selected me to be, for the time being, the presiding officer of the society. The honor you did me in selecting me for office for this particular season, I have tried to merit by an earnest application to my duties as these have shown themselves to me. Service is the most direct and expressive way of showing gratitude; service to one's fellows the most welcome form of service; I therefore thank you again for having given me this opportunity to have served you and the society in the past two years.

The president of this society has the privilege as well as the obligation of addressing the society upon a subject which he selects as being one of importance and moment. With considerable doubt about my being able to say aught that can ameliorate any of the untoward conditions under which we work, but with no hesitation whatever about what I am going to say, I beg you to listen and to consider with me the subject that I have selected. It is one which has been, and is, and always will be with us—always insistent of attention—always trite and wearying—but always of great and growing importance: the subject of "The Standardization of Medical Men, with Special Reference to That Standardization Being Understandable by and Appealing to the Layman." This is the clause that must save the subject, here in its presentation before you, and in its concrete application as well—a standardization that the layman can understand and appreciate—a standardization not made of us by him, but made by us for him.

The president of this society, never selected because an executive or an administrator is needed, becomes *ex officio* a member of the executive body of the society—the Council. Here, among men whose tenure of office exceeds his own and whose continuity as a body is assured by the overlapping of the periods of holding office, he learns details of policy formation and control, and business management and administration which he could never know without that association. Here he can appreciate, better than can be done on the outside, the adverse pressure that is constantly on the medical profession and the constant watchfulness and unbroken counterpressure that are demanded to resist it. Here, he learns that directing the affairs of the society and of the profession is a "big business," with many sides and many phases. Here, too, he sees that policies tending to mutual understanding between the layman and the physician are just as necessary to making the service which the physician sells the layman salable, as they are to the marketing of the output of any other "big business." In each and all, methods which make the customer or patient desire

and seek for the product of the manufacturer or the service of the physician, are living methods, and profitable to both parties.

At what point, and in what way can the methods of the medical profession be changed so as to help the layman to want the physician rather than the charlatan, to help the layman prefer the better equipped and prepared man to the more poorly equipped: to make the layman take the same trouble in selecting a physician that he would in engaging a chauffeur or a cook? Have any of you ever talked with some friend about your profession and noted his real ignorance of rudimentary facts concerning medical education, medical literature, medical progress and medical aims? I had such a talk, within the past ten days, with an attorney whose name spells ability and worth, and I found that he had no concept of the obligation that was upon him to know matters of this kind about a sister profession, that he would be quite willing to take a physician or a surgeon on a friend's valuation without knowing where that physician had studied, what hospital or other experience he had had, or what was his particular fitness for any special work. In other words, all he wanted was the layman's physician—he did not think of the physician's physician. The average layman judges critically those matters with which he is acquainted; he takes but little trouble to get acquaintance with matters outside his ordinary experience; he follows the multitude to the physician's door as he does into the shops, and commonly accepts the fate that awaits him with a confident stoicism and the self assurance that his selection had been that of the best there was. It is true that we see him to-day earnestly supporting medicine in its higher phases of education and practice; we see him to-day applauding the gift of thousands of dollars to some hospital or medical school; but we see him *also* to-day trooping after the exponent of the last "pathy" hatched in some errant brain, and we see him again to-day busy in the legislature to qualify the unqualifiedly bad, to legalize that which is unreason, to create by enactment a minor part of therapeutics into a scheme that shall cover and answer for all medicine, or hatching laws to limit and control normal study and investigation of natural phenomena for the practical benefit of man. We see him, too, Janus-faced, denying the evidence of his senses and refusing to recognize fact, through part of his experience in life, and in the next moment guiding his feet and controlling his actions in full accord with the physical and social world around him. It goes without saying that no scheme of things bounded and controlled by fact and by reason can attract and satisfy all of the multitude of the average; he who resents the orthodox because it is such, has to revolt because he is what he is; and he who does not think, no matter what may be the need of it, cannot be caught and held when appreciation of conditions is necessary. But, in spite of the refractory or indifferent character of the mass, there must be some way by which the medical profession can reach them and attract them,

* Read at the Forty-fifth Annual Meeting of the Medical Society of the State of California, Fresno, April, 1916.

some way by which they can be shown that better service is here rather than there, that serious preparation through several years must end in greater competency to understand and control natural phenomena than a brief and frivolous preparation, and that the day is long since past when the unknown was revealed to man rather than dug out by him.

It seems to me that this end must be accomplished—if it can be accomplished—by improving the product, that is, the quality of the medical man and his service that the medical profession offers the layman; or, by the elimination of the less fit and the unfit of the cults and "pathies" about us; or, by announcing the medical profession to the layman in such a way that he can understand without thought or investigation; or, by all these ways together.

Now, we do not need, so far as the layman average is concerned, to endeavor to improve the medical product. He is indifferent to the quality, as it is, and does not really ask for a higher grade of physician. Again, so far as he is exemplified by his selected representatives in legislatures, he prefers the short term man to the long term man—he deprecates full knowledge—he still wishes the man who will treat, even though he knows not what he is treating, rather than the man who insists on taking time to learn conditions before he prescribes a course of action. Again, and on the other hand, since medicine has been recognized by the universities, since medical education has passed from the hands of the practitioner to its true place in the academy, its full development has been assured, and its status from now on need cause the medical profession no anxiety. This does not mean for an instant that the medical profession need take no further interest in medical education. The bias views of two state universities in the past two years regarding a pseudo-science show us that the instructor is not infallible, but in spite of these pitiable errors of judgment, the universities have educational ideals to which they are bound, from which they cannot withdraw without at once calling out the criticism of the expert, and with the full knowledge that the lapse cannot be concealed nor excused. Therefore medical education must take its stand with education in general, as a matter of education, and with improvement and development in the university as a whole, or in any individual branch or department, there will come inevitably and automatically improvement in medical education.

Therefore, so far as improving the product is concerned, the average layman does not demand a better physician, and we cannot attract him by offering him one. The universities are going inevitably to produce him, but his coming will not solve the problem I have set for our consideration.

The second possible means—the elimination of the less fit and the unfit—may be put aside as really an impossibility. No sooner does one cult become senile or die than another leaps up to take its place, and no sooner does this one wax lusty and

prosper than a rival appears to share the spoils. Even in that country which was most abundantly ruled and governed, quackery and charlatanry ran riot, and were even recognized as such. Moreover, any method of elimination, apart from absorption—which can be done only when the cult has developed out of its aberrant theories into the lines of pure science—calls to the aid of the condemned all support by the cry of "jealousy," "selfishness," and the charge of injustice to innocence.

The medical profession must make up its mind to having always rivals in the hangers-on to its skirts, parasites who profit by its knowledge and achievements, but who pay naught and give less. They can only be eliminated by the layman; but he loves them, turns to them, leans on them, and by so doing supports them. They are like the poor—they will always be with us.

The next suggestion of a means to attract the layman to medicine and away from cults and "pathies" is really a form of advertisement. The individual medical man cannot advertise himself to his public. He can, of course, announce himself as ready for work of some specific sort, but this is not an advertisement in that he cannot personally claim any special or particular excellence or preëminent ability without the loss of professional standing and dignity. But that which the individual cannot do without this loss—a loss which at once negatives the value of his advertisement—the profession as a whole can do; in fact, it is doing it all the time, as in its propaganda for the control of tuberculosis, or of cancer—its public teachings about plague or other contagious or epidemic diseases—its public teachings about home and personal hygiene, or the care and nurture of infants, or the special requirements of the deficient—and medicine is doing this not only without the loss of one jot or tittle of standing and dignity, but always with added merit and renown. Indeed, if medicine did not do these things, and claim excellence and preëminence in the doing of them, it would be quite as much open to criticism as would be the individual who vaunted his own value to the same extent. There is wisdom in the distinction. Individuals are many; rivalries and competitions would be inevitable, ending in discord in the profession and unutterable confusion in the layman. Medicine is single and distinct; its announcements of its discoveries, its accomplished works, its powers and potentialities are made without the possibility of any rival making contrasting or competing claims. Its imitators seize its discoveries, and copy its methods, exploiting them as far and as long as they can for their own advantage, but this does not constitute a rivalry nor a competition, for an imitator, by the very fact of his imitation, is a follower, and so debarred from independent competition.

Therefore, since medicine can announce and also advertise, while the medical man alone can only announce, it is through medicine that he must seek and find his method of advertisement. There is nothing new in this. For long have physicians

and surgeons sought and secured positions of responsibility and eminence, not alone for the happiness of doing difficult tasks, but also for the prominence such positions gave them above their fellows. And now, for the purpose of our inquiry, we must see what mechanism exists in medicine which can be used for this advertisement of all, not of a few—an advertisement which must attract the layman and draw him, for his own benefit, to medicine and the greatest competency of the day, and away from the "pathies" with their incompetencies.

Naturally, one turns at first to the already existent organizations of medicine, and particularly to the Medical Society of the State. Is it in such a position, has it such an organization and mechanism as would make it an adequate medium to reach the layman? Would the layman listen to statements made officially by it, and accept them because of their source? How is the society constituted? What is its membership? To how many of the laity is it known?

Taking these last questions in inverse order for the answering, I am certain that I am not overstating nor understating the fact when I say that ninety-nine laymen out of a hundred in the state have no conception at all of the real motive of the society, no appreciation of the higher in contrast with the lower in medicine; that ninety-eight or ninety-seven out of a hundred in the state would deny that the society could be formed for any but the selfish aims of the members; that ninety-six or ninety-five out of a hundred might acknowledge that they had heard that there was such a society, but would assert that they had no interest in its existence, and that ninety out of a hundred would affirm that they had no recollection of ever having heard of it and no knowledge of its existence. Surely, if this is so, the society would be but an impotent medium of announcement. That it is such must be the fault of its membership. Therefore, what is its membership? How is the society constituted?

According to the constitution, the portals to the State Society are the county societies, and the constitution states that "each county society shall judge of the qualifications of its own members." Therefore the State Society is made up of members of the county societies, with no vote nor veto power vested in the State Society. The county society is the unit, and the state society a federation or union of the membership of the units. Admission to the county societies is by election, based, as it always is, on information and belief regarding the candidate. Once a member of the county society, that society is the primary organization; the state society is some distant annual recurrence to which the county member has access with no further formality. Obviously the state society cannot vouch for its own members; if a question is raised about one of them it must be referred back to the county society of which that man is a member. Obviously again, the state society, supposing it was a competent medium toward the layman, could not certify to the ability

and skill of any one of its members. For every one, then, the society would be a useless method of individual certification of ability, just as membership in it to-day is a negative criterion of ability for all.

Now, I think that this condition, which quite prevents the society's taking that relation toward the laity which it should take, so that the layman would consider it quite as much his society as the physician's, is wrong, and I believe that it can be and that it should be corrected, though I am well aware that the methods I shall propose for its correction will be thoroughly criticized.

In the first place, in order that any organization may be able to certify to the character and ability of its membership, it must select that membership in accordance with some definite standard. This means some form of an examination, and methods of examination are now so improved that much of the current criticism and condemnation of them has lost its point.

I mean here an examination different from and above that of any state examination. We have seen that test so twisted and knotted that it cannot measure correctly. We have learned the error of expecting the inexpert to wisely prescribe methods and standards for classifying the expert. We must take back into the hands of medical men the examining of applicants for membership in our learned societies. No longer should they find easy access, through a state examination and an election. No longer should they be allowed to demonstrate their professional ability or lack of it by uncontrolled work on men, women and children. This, again is not a novel proposition, for one state society already has, in fact, has always had, the test of an examination for admission to it.

The state society—the examining society—should be the unit in the state; county societies should be the sub-units or fractions, each getting its organization and charter from the state society of which it would be, not a component part, but an integral part.

By these two measures, the establishment of a test by examination for admission to the state society and the making the state society the unit in the state, it would be in a position to go to the layman and say: "These are the members of this organization, every one has been tested and found fit to undertake the heavy responsibilities you have for him; the organization, as a whole, is behind each member. Membership in this society is a criterion of ability and worth."

But:

That would only be the beginning. This society would then have the task of coming openly before the public, not only as a standardizing and certifying body for its physicians, but also as an educating body for the layman. It must frankly adjust itself in relation to the layman, so that he will listen: it must not expect the layman to, in the first instance, come to it. On the contrary, the society must in the first instance go to the

layman, and then see to it that the layman comes to it in the second instance. At the present time, the State Board of Health is the body to which town and city governments and public and quasi-public corporations turn for information and advice regarding public hygiene and sanitation. This should always be so. But there are questions which are not sanitation matters, problems before chambers of commerce, boards of trade, corporations conducting enterprises which need medical supervision, or conducting hazardous enterprises in which accidents occur necessitating the employment of surgical services, and so on; the society should so establish itself in relation to these sister corporations that they would turn to it with no question but that that was the natural and first thing to do for information, for advice, for assistance, or for the nomination of suitable men to take up particular functions. The society should so establish itself in the knowledge and regard of every individual that no man would ever think of sending into the sick room of his wife or his children, nor of calling to his own aid, a physician or a surgeon who was not a member of the society and had not its endorsement of his skill and his morals.

Thirty years ago, when I became a member of the society, its annual meeting, the papers read, and the banquet constituted all. And that was enough. The membership was small, its needs were simple and were satisfied without difficulty. These thirty years have seen the development of a relatively most complex organization out of the original simplicity. But while applauding this and emphasizing the importance of the work now done, I insist that it is not enough; I insist that development is imperative, and I affirm that it should be along the lines I have indicated—by gradual advance and successive small alterations, which shall be properly adjusted and anticipated, and announced in advance, until the changes I have indicated have been brought about. It can never be enough that the society shall expend practically a hundred per cent. of its energies on its own membership or for its own membership. It can never be enough that the society shall be seemingly always in opposition to the laity in the legislature and in courts, even though that position of opposition is forced on it by the laity itself. It can never be enough until the society shall be able to live up to the letter and the spirit of that sentence in the announced object, which says: "to enlighten and direct public opinion in regard to the great problems of state medicine, so that the profession shall become more capable and honorable within itself and more useful to the public." It can never be enough until the society shall surely be, so far as medicine is concerned, all things to all men in this State of California.

Forty-fifth Annual Meeting

REPORT OF THE SECRETARY.

To the President and Members of the House of Delegates: Medical Society State of California. Gentlemen:

As required by the By-Laws, the Secretary herewith presents a statement of the condition of the membership of the Society and, as there was no meeting in 1915, a brief statement of the years 1914 and 1915 is included.

The year 1913 closed with a membership of 2396.

The year 1914 closed with a membership of 2503.

The year 1915 closed with a membership of 2557.

In 1914 there were 27 deaths and 5 resignations.

In 1915 there were 36 deaths and 3 resignations.

It will appear from these figures that there are very few resignations, and that in spite of resignations and deaths the membership has constantly grown.

A word may be added in the nature of a report from the Editor.

The work on the Directory has grown so much that its publication in the latter part of last year was impossible. Owing to the increase of work of all kinds in the office, it has been necessary to add the services of an additional clerk, and this will permit us to more carefully systematize some of the work and probably get the material for the next Directory together in quicker time.

Journal: In the opinion of the Editor, the average quality of the papers in the Journal shows a definite improvement. This is in no way due to the work of the Editor, but is an indication of the fact that our members are producing better and more valuable papers.

The Publication Committee has been at all times of the greatest service to the Editor, and the members of the Committee have cheerfully read and considered a large number of papers. No paper has been rejected or refused publication until after submission to at least one or two of the members of the Committee.

Respectfully submitted.

(Signed) PHILIP MILLS JONES,
Secretary.

REPORT OF THE COUNCIL.

To the Officers and Members of the House of Delegates:

Gentlemen:

Your Council, as required by the By-Laws, presents herewith a report of the affairs of the Society, including its various activities, covering the period of the two years 1914 and 1915.

The financial statement, together with the reports of two firms of certified public accountants for the year 1914, was published in the Journal for November, 1915.

The report of the certified public accountants of the audit of the books and accounts for 1915 appears in the Journal for April, 1916.

Journal: The Journal shows some slight increase in receipts, and the early part of 1916 shows an additional slight increase. It will also show a considerable increase in subscriptions.

Allowing \$1.00 per member as subscription to the Journal, it will be seen that the Journal is earning a profit which pays two-thirds of the amount of the salaries paid out in our office.

Register: The Register is a loss, and will always be a loss, to the Society. Furthermore, the amount of annual loss on its publication is increasing. The Council has heretofore called attention to the fact that the Directory is not considered to be a valuable advertising medium and that it is increasingly difficult to secure advertisements for it. We must confidently expect that it will always be an expense and never a producer of revenue.

Industrial Accident Insurance: A number of complaints having been brought to the attention of the Chairman of the Council by the Secretary of the Society, the Chairman appointed a committee consisting of Dr. James H. Parkinson, Dr. Sol. Hyman and Dr. Philip M. Jones, to represent this Society in the sessions of a joint committee, on which the additional members were Messrs. Bower, Wistrand and Coen of the Casualty Insurance Adjusters' Association, and one from the State Compensation Fund—Dr. Morton Gibbons. This Committee considered various matters presented to it, and found:

1st. That nearly all complaints were due to a failure of the physician in the case to understand the situation, properly make out his bills, reports, etc., and a lack of realization on his part that additional compensation is willingly allowed when the circumstances justify it and the facts are duly presented to the company.

2d. In the matter of complaint that certain physicians were acting as agents and as surgeons for the company, such a condition of affairs, if existing, was found to be without the knowledge of any company, and was probably a local understanding between the physician and the local agent.

3d. In regard to complaint from Los Angeles that companies were making contracts with physicians, paying a fixed and insufficient amount as flat compensation, it appeared that only one company in one instance, so far as known, had done this and that was a single case in Los Angeles.

It was decided to form and put into operation a *Grievance Committee*, as recommended in our report of April, 1914, and authorized at that time. This Committee has been appointed as follows:

For the Medical Society: Dr. Morton Gibbons, Dr. Sol. Hyman, Dr. Philip M. Jones.

For the Insurance Board: Messrs. Bower, Wistrand and Coen.

This Committee will meet at any time, consider any complaint, and endeavor to secure an amicable adjustment.

Medical Defense: The most important work which this Society has ever undertaken is that of defending its members when sued for damages for alleged malpractice.

From 1909 to 1913 there was comparatively little work. The total cost of the work in all parts of the State for those five years was \$13,323.07.

As an indication of the way the work has increased, it may be noted that for the two years covered by this report the cost was \$16,157.04.

The cost by years is as follows:

1909	\$ 788.08
1910	1,689.37
1911	2,389.65
1912	3,242.87
1913	5,213.10
1914	7,093.01
1915	9,064.03
	<hr/>
	\$29,480.11

From the map and figures presented, it will be noted that there have been 270 suits or threats from attorneys; these are not separated for the reason that any separation accurate to-day might be false to-morrow. In other words, any number of threats may become suits at any time, and in both events expense is incurred by the Society.

This work is actually a very serious and a very considerable business undertaking, and your Council has conducted it in as nearly a business-like way as possible. It is not good business to employ several people to do work that one person can do; it is not good business to allow a party to a contract to be excused from performing his obligations. Therefore the rule was made in regard to handling cases where a suit is filed against a member who is also insured in an indemnity company. If such company employs thoroughly qualified lawyers, there is no necessity for our going to additional expense in the matter. Also there is no necessity for excusing such insurance company from paying all the court costs, etc., which it has by contract undertaken to pay. Where our attorneys have reason to believe that they can be of material assistance in defending the rights of the member, they are instructed in all cases to do so. As an illustration of this we might cite one county alone; to go into all the cases would be far too tedious. In Alameda County during the period covered by this report, in three instances where each one of the three members held insurance, and where the court costs, etc., were paid by the insurance company, we felt it necessary for our own attorneys to take charge of the actual trial, and these three cases cost the Society for this defense, in addition to the costs paid by the insurance company, \$985.00.

Complaint has been made that in the event of judgment against a member, the amount assessed would have to be paid by himself. This is correct. This is the action that was taken in April, 1909. If the House of Delegates wishes to change this action and create a fund out of which such expense items may be paid, it can do so by placing any assessment it sees fit upon the membership. In this connection, we report that during the total existence of our medical defense work, there have been three cases of a member defended by this Society where a verdict was awarded against the member. The total amount of such judgments is \$3960.00.

To repeat: Only three judgments have gone against members in seven years, and one of these is now on appeal; the total amount of damages was \$3960.00.

The Council makes no recommendation on this

subject, but presents to the House of Delegates two possible practicable plans:

1. That the assessment upon all members for at least two years be made not less than \$15.00, the total amount of 50% of this assessment to be set aside to create a fund to be used only for the payment of judgments against members, settlements of suits against members out of court, when it appears that in all probability there is no possibility of successfully defending such a suit.

2. Allow the present assessment to remain as \$6.00, and authorize the Council to invite 1000 or more members who wish to do so, to pay into a fund \$15 per year apiece for not less than two years, the interest on this fund to be used for increased amount which defending suits would cost, and the principal to be used for defraying judgments, settlements and the like in actions brought against such members as contributed to this fund. Under this suggestion, all members would be defended in any action for damages for alleged malpractice as at present under existing rules, but judgments, settlements and the like would only be paid for those members contributing to the fund.

Either of these plans would create at the end of two, or at most three years, a fund of from \$25,000 to \$45,000, which fund without any additions would take care of this feature of the work for many years to come. Upon its depletion at some time in the future, an additional assessment to replenish it could be levied. From the experience of the last seven years, however, it is probable, and the Council has every reason to believe it true, the fund would last without requiring an additional assessment for at least ten years.

The Council recommends that San Diego (Coronado) be the place of meeting next year.

REPORT OF THE COMMITTEE ON THE EFFECTS OF ATHLETICS ON PUPILS.*

The Medical Society of the State of California:

Mr. President and Fellow Members—Five years ago at the instance of Dr. Pottinger this society appointed a committee to investigate the effects of athletics as practiced in the universities and high schools. At that time the magazine literature of the country was awakening the public understanding to the dangers and abuses of competitive sports and your committee hoped to obtain accurate information and engage in personal investigation of the physical and mental effect of athletics as then practiced. In the pursuance of that intention a tentative scheme of work was agreed upon and has in part been carried out. That we have in no way realized our full program, has been due to various circumstances. It was soon realized that physical observations on a

scale capable of yielding reliable results involved an expenditure of money that was not at the disposal of this committee. Secondly, the death of one member and the prolonged indisposition of another reduced the working force. Thirdly, one of our most valuable members resides at such a distance from his fellows that frequent conferences were not possible. Notwithstanding these difficulties work has been done. On the physical side, the investigations of Dr. Kilgore on blood pressures under strain were published at the state society's meeting of 1912, and since then has appeared the report of Dr. D'Arcy Power dealing with the psychological effects of training and competitive sports. It is some testimony to the value of your committee's work that this latter report has been republished by the Department of Education of the National Government (United States Bureau of Education of 1914, No. 4).

In the years that have elapsed since this committee was appointed the attention of the public and educators has been strongly focused on the evils associated with competitive athletics with the result that your committee is of the opinion that the *raison d'être* for its continuance has ceased to exist. In making this the final report your committee would draw the attention of the society to a recent paper by Dr. W. T. Foster entitled an "Indictment of Inter-Collegiate Athletics," wherein he states that his conclusions are based on five years' personal observation of no less than 100 universities and colleges in 38 states, and sums up his conclusions by the statement that:

"The most obvious fact is that our system of inter-collegiate athletics after unbounded opportunity to show what it can do for the health, recreation and character of all our students has proved a failure and that inter-collegiate athletics provide a costly, injurious and excessive régime of physical training for the few students, specially those who need it least instead of an inexpensive, healthful and moderate exercise for all students, especially those who need it most."

This is almost identical with the conclusions reported to the society in this committee's second report.
(Signed) H. D'ARCY POWER.

SUMMER GRADUATE SCHOOL.

The medical faculty of Stanford University has arranged for a course of Summer Graduate Medical lectures lasting for six weeks, from July 6 to August 15. The courses are numerous and arranged so that any licensed physician may select such branches as he may wish to brush up on. All classes are limited in number and anyone interested had better correspond early with the Dean of Stanford Medical School, Sacramento and Webster streets, San Francisco, Calif.

* Read at the Forty-fifth Annual Meeting of the Medical Society of the State of California, Fresno, April, 1918.

MINUTES OF THE HOUSE OF DELEGATES, FORTY-FIFTH ANNUAL SESSION, FRESNO, APRIL 18 AND 19, 1916.

FIRST SESSION, APRIL 18, 1916, 8:30 P. M.

Meeting called to order by the President, Harry M. Sherman.

Roll call. The roll being called, 63 delegates were found to be present, and the President, Dr. Harry M. Sherman in the chair, declared that there was a quorum of delegates present and the House was ready for business.

Report of President was made verbally, and merely referred to the fact of his annual address which had been presented at the morning session, and which was referred to a Committee on Reports and New Business appointed by the President as follows:

Chairman, F. F. Gundrum, Sacramento; T. C. McCleave, Berkeley; Geo. E. Tucker, Riverside.

Report of Secretary and Editor was read and referred to the Reference Committee.

Report of the Council was read by the Chairman, C. G. Kenyon, and referred to the same committee.

Report of the Treasurer. There is no report of the Treasurer, as the report of the certified public accountants, being the audited accounts, is the report of the Treasurer.

STANDING COMMITTEES.

Advertising Committee. This Committee reported verbally by its Chairman, R. E. Bering.

Scientific Work. This Committee reported verbally by its Secretary, H. E. Alderson, who asked for suggestions for plans for the next program.

Public Policy and Legislation. The report of this Committee was read by its Chairman, George E. Tucker, at the morning session and was referred to the Reference Committee.

Committee of Arrangements. This Committee reported verbally by its Chairman, George H. Aiken.

SPECIAL COMMITTEE.

Report of the Special Committee on the Effect of Athletics upon School Pupils was presented at the morning session and is now referred to the Reference Committee. The Committee requested to be discharged.

NEW BUSINESS.

I. C. P. Thomas, Los Angeles, introduced the following, which was referred to the Reference Committee:

Gentlemen: I have been appointed a sub-committee of one by the Los Angeles County Medical Society to present here the matter of requesting a raise in the fee schedule of the different companies in this State writing workmen's liability insurance.

"(Resolutions passed by the Los Angeles County Medical Association on Thursday, January 20, 1916, and approved by the Board of Councilors on Monday, January 24, 1916.)

WHEREAS, It appears that the California State Compensation Fund, and the various private insurance companies giving industrial accident insurance, have been operating during the last several years at a very considerable profit so that refunders amounting to thousands of dollars have been given to policy-holders; and

WHEREAS, At the time the fee table of the State Compensation Fund was agreed to by the

Medical Society of California, it was stated by the officers of the State Compensation Fund that they recognized that these fees were low, and that if, after the Fund was firmly established in its business, it could be shown that these fees could be increased without detriment to the welfare of the State Industrial Commission or of the State Compensation Fund; and

WHEREAS, It would appear from the heavy refunders which have been given to policy-holders that the time has now come when it would be possible to compensate physicians and surgeons with fees more in keeping with the heavy responsibilities and work thrown upon them in connection with this Industrial Protection; now therefore be it

RESOLVED, That the Los Angeles County Medical Association herewith requests the Medical Society of the State of California, and the other county medical units of that organization, to give this matter their careful consideration, and to bring up the matter at the Fresno meeting of the State Society; and be it further

RESOLVED, That the Los Angeles County Medical Association, through a special sub-committee, take up this matter with the State Society and the other county medical units, and also with the State officials and the insurance companies to see whether it would not be possible to bring about a more equitable fee table than that which now exists."

It will be remembered that, two years ago when the present fee schedule of the State Fund and several insurance companies was being discussed by this Society at Santa Barbara, we were requested and urged by the companies to adopt this fee bill, with the understanding that if, after the experimental stage of these several companies in this new line was past, it was found to be too low, we might then expect an increase in the fee schedule.

I have obtained from what appears to be a reliable source the following facts, which should enable this Body to reach definite conclusions now as to whether or not we are entitled to that raise:

It appears that, during nine months of 1914 and all of 1915, after paying all claims and setting aside the necessary reserves for protection of the policy-holders, there accrued to the State Fund, which charged the same rates as the insurance companies, a net profit of \$243,505.20; that, during this period, they returned to the policy-holders 15 per cent., or \$180,425.67.

This would make a grand total in profits, after setting aside the above reserves, of \$423,930.87.

The records show that, during these two years, the State wrote 13 per cent. of the total amount of that kind of insurance in the State, which would give in profits for that business alone in the State the sum of \$3,261,006.69.

Now the State proposes to return to the policy-holders 25 per cent. more of the sums collected for policies. You will readily see then that this enormous profit has been made largely at the expense of the medical profession.

In consideration of these facts, I beg to submit the resolution to the House of Delegates to recommend that the State Industrial Accident Commission and the several insurance companies raise the scale of prices in their present surgical fee bill, at least the operation fee, 50 per cent.

I wish to add further, that the San Francisco Society will also introduce resolutions on this subject, it being left to the House as to what action to take.

J. H. Graves of San Francisco introduced the following, which was referred to the Reference Committee:

WHEREAS, The Medical Society of the State of California at its Santa Barbara meeting two years ago adopted a tentative Fee Bill for cases coming under the recently passed Workmen's Com-

pensation and Safety Act, without at that time having had an opportunity to carefully investigate and ascertain what a reasonable fee for such services should be; and

WHEREAS, It appears that the Social Insurance Commission appointed by the Governor of this State is investigating with the idea of enacting into a law some form of health insurance; and

WHEREAS, The future welfare of the Medical Profession is involved in these measures; now, therefore, be it

RESOLVED, That this Society hereby rescind its action in adopting the Fee Bill at Santa Barbara two years ago; and be it further

RESOLVED, That a committee from this Society be appointed to confer with said Industrial Accident Commission which has this work in hand in order that the interests of the Medical Profession be properly represented, said committee to report the result of its investigations and results at the next annual meeting of this society.

Dr. Mattison, Pasadena, introduced the following amendment to the Constitution which, under the Constitution, must be published twice in the Journal and come up for action at the next annual session:

Proposed Amendment to the Constitution of the Medical Society of the State of California. (See page 100 of the 1916 State Medical Directory.)

The amendment deals with the first sentence of Article VI of the Constitution, relating to officers, and omits two assistant secretaries, and adds three councilors-at-large, so that this sentence of Article VI will read as follows:

"Section 1. The officers of this Society shall be a President, a First Vice-President, a Second Vice-President, a Secretary, a Treasurer, Examiners or nominees for appointment as members of the Board of Medical Examiners, as may be required by the laws of the State of California governing the practice of medicine, and fifteen Councilors, of whom one shall be elected from each of the nine councilor districts, and six Councilors-at-Large."

The remainder of the Section and Article to remain as it now reads.

F. F. Gundrum, Sacramento, presented a letter referring to the ownership of X-ray plates, as follows:

2315 M Street, Sacramento, Cal., April 14, 1916.
To Dr. F. F. Gundrum, Secretary, Sacramento Society Medical Improvement, Inverness Building, Sacramento, Cal.

Dear Doctor Gundrum:

Pursuant to several conversations we have had at various times in the past regarding the ownership of Roentgenograms, I am writing you at this time to ask you if you can present the matter to the Directors of the Medical Society, and before the authorities of the State Medical Society, for adjustment.

I have had at various times controversies both verbal and written concerning this question. It seems to me that if an authoritative decision can be had much disagreement and no little unpleasantness can be disposed of.

There seems to be no general agreement in the matter.

It is conceivable that there might be three claimants for the possession of a Roentgenogram, each insisting that by virtue of right and justice he is the sole and true owner; first, the physician who sends the patient to the Roentgenologist; second, the patient who is being examined Roentgenologically; and third, the Roentgenologist who makes the Roentgenogram.

Let me state here that it is customary that when an X-ray is desired, the following procedure is followed:

The patient first consults the physician as to his

or her affliction, whereupon the physician makes an examination to determine the nature, the cause, and the extent of the affliction. In the course of the examination it may occur that the nature, the cause, the extent of the affliction, or all three, may not be obvious. The physician decides that an "X-ray" may serve to clear up in his mind what heretofore had been uncertain. He advises the patient accordingly, and sends the patient to a Roentgenologist. Here an examination is made by means of the Roentgen-ray, and either fluoroscopic or skiagraphic work or both is done. Thereupon a fee is collected by the Roentgenologist or his representative, and the patient returned to the physician. The physician then confers and consults with the Roentgenologist, who after study of the fluoroscopic or skiagraphic phenomena and deliberation thereupon has arrived at an opinion.

The various arguments with which I am familiar, in which one or other of these three parties make claim to the Roentgenogram, are briefly as follows:

The physician's claims:

The Roentgenogram is made at his direction.
It is made for him.
It is made for his use.
It is made of his patient.

The patient's claims:

It is made of him.
He pays for it.

The Roentgenologist's claims:

He makes it.
He uses it for his record.
He needs it for future comparisons.
He needs it for future study.
It is his instrument.

The patient does not pay for it, but does pay for his study, deliberation, and opinion.
It is of no value to anyone but to him.

The following has been by opinion and is based upon the opinions of prominent Roentgenologists who have written on the matter both in this country and abroad:

That the Roentgenologist stands as a consultant in the same relation as an expert or specialist of one or another medical branch to the physician sending the patient.

That the Roentgenologist is and should be a professional medical man who has made an especial study of the examination of the human body by means of the Roentgen-ray.

That when the patient is under the care, advice, and treatment of the Roentgenologist, as such, the patient is the patient of the Roentgenologist as well as of the physician.

That the making of a Roentgenogram in the examination of a patient is a means to an end—to wit, his opinion—and therefore incidental, and comparable to the making of a pulse-tracing, or a written notation of symptoms and signs in a particular case, or the original written report of a laboratory finding, etc.

That the Roentgenologist only is capable of correctly interpreting the significance of the various phenomena, and that in other hands error might be made and disaster result.

That if it is conceded that the Roentgenogram has simply been bought by the patient for the physician's use, there is an indirect and implicit imputation that the function of the Roentgenologist is entirely mechanical and not professional, because such a view would indicate that the Roentgenologist has completed his work when he has exposed, developed and dried the sensitized plate, and such occupation is entirely mechanical.

That if the Roentgenogram has been removed from the possession of the Roentgenologist, the latter in the event of a future examination is handicapped for the want of an accurate record for comparison.

That the written report of the Roentgenologist

made from the study of the Roentgenogram is sufficient for the ordinary needs of the physician; but in extraordinary event, the Roentgenogram can be loaned, or prints can be made and given the physician.

That the above opinions constitute the basis for the custom followed by the majority of Roentgenologists.

That generally speaking these opinions are conceded by the majority of reasonable physicians, by all accident insurance companies (except some of the lately organized industrial accident insurance companies).

I shall be indeed grateful to you for your effort in bringing these matters to the attention of the various above named organizations.

I am very truly,

A. B. DIEPENBROCK.

Dr. Clarence Moore of Los Angeles introduced the following resolution:

RESOLVED, That the House of Delegates request the Reference Committee on Reports and New Business to present a resolution with recommendations on the subject of regulating the granting of charters to medical schools.

Dr. Philip K. Brown introduced the following resolution:

RESOLVED, That the House of Delegates recommend to the Board of Councilors that Santa Barbara be selected as the place of the 1917 meeting and that the Hotel Potter be made the headquarters.

Dr. E. N. Ewer of Oakland introduced the following resolution:

The undersigned members of the Society feel that the subjects of Obstetrics and Gynecology have been neglected in the scientific programs (there having been no papers on obstetric matters and few in Gynecology in many years). As it seems impossible to secure adequate consideration of these important subjects in the programs of the general sessions, it is deemed advisable to provide for them in a separate section.

Edward N. Ewer,
Alfred Baker Spalding,
A. P. Newman,
Frank W. Lynch,
J. Craig Neel,
Frank R. Girard,
Dudley Smith.

Dr. Phillips of Santa Cruz extended an invitation to the Society to hold its next annual meeting in Santa Cruz.

Dr. Lockwood of Los Angeles asked some questions in regard to the Register and Directory, and the loss incurred by its publication. No resolution and no action.

Dr. Rene Bine spoke on the subject of social insurance.

Dr. Philip K. Brown introduced the following resolution:

RESOLVED, That the Council of the Medical Society of the State of California is hereby requested to give such assistance as they shall deem necessary to the California Society for the Promotion of Medical Research in order to make its work effective; be it further

RESOLVED, That the Secretary of the Society shall by written communications ask the component

county societies to render such assistance as shall be requested of them.

The following communications were presented by the Secretary:

Social Insurance Commission of California.

525 Market St., San Francisco.

March 28, 1916.

Dr. Philip Mills Jones, Secretary, Medical Society of the State of California, Butler Bldg., San Francisco.

My dear Dr. Jones:

The State of California has created the Social Insurance Commission to make a study of the social insurance theory, to examine the European experiments with this theory and to make a careful survey of California conditions with the end in view of advising the legislature as to the necessity and practicability of extending the field of social insurance which the state has already initiated in its Workmen's Compensation Act.

The commission is centering its first efforts upon sickness insurance and hopes to return an adequate report on this topic. The co-operation and counsel of the Medical Association will do much to make it possible for the commission to render a report of real value. To this end, therefore, we request that the Medical Association appoint a committee to confer with the Social Insurance Commission.

Trusting that the Medical Association will find it possible to render this assistance, I am,

Very sincerely yours,

BARBARA NACHTRIEB,

Secretary.

Fresno, April 18, 1916.

To the Board of Councilors, Medical Society of the State of California.

Gentlemen:

The San Diego County Medical Society, in extending its invitation to the State Society to hold the 1917 meeting in San Diego, has in mind and stipulates, the State Society being willing, that the sessions and headquarters shall be at the Hotel Coronado.

JOHN C. YATES,

President, San Diego County Medical Society.

There being no further new business, the minutes of the First Session were read and approved as read, whereupon the House adjourned.

SECOND SESSION APRIL 19.

Meeting called to order by the President at 8:30 p. m. Roll call disclosed the presence of 51 delegates. The President announced a quorum and the House ready for business. A considerable number of delegates came in subsequently during the session.

Place of Meeting. The President announced that the Council reported that San Diego had been selected as the place of meeting for 1917.

ELECTION OF OFFICERS.

President. George H. Kress of Los Angeles was nominated by John C. King of Banning. There being no other nominations, on motion the nominations were closed and the Secretary instructed to cast the ballot. George H. Kress was declared duly elected for the ensuing year.

There was no contest in the election of any of the following officers, and in each case the motion prevailed unanimously that the nominations close and the Secretary cast the ballot, with the exception of the election for Secretary, in which case the motion was that the nominations close and the President cast the ballot.

First Vice-President. L. R. Willson, Fresno.

Second Vice-President. John C. Yates, San Diego.

Secretary. Philip Mills Jones, San Francisco.

Councilors. First District, term expires 1918, C. Van Zwalenburg of Riverside.

Second District, term expires 1919, Clarence Moore of Los Angeles.

Third District, term expires 1918, T. C. Edwards, Salinas.

Fourth District, term expires 1918, George H. Aiken, Fresno.

Sixth District, term expires 1919, C. G. Kenyon, San Francisco.

Eighth District, term expires 1919, James H. Parkinson, Sacramento.

At Large, term expires 1919, O. D. Hamlin, Oakland.

At Large, term expires 1918, H. A. L. Ryf-kogel, San Francisco.

Committee on Scientific Work.

Term expires 1918, Fitch C. E. Mattison, Pasadena.

Term expires 1919, R. A. Peers, Colfax.

Committee on Public Policy and Legislation.

Term expires 1917, George E. Tucker, Riverside, Chairman.

Term expires 1918, William LeMoyné Wills, Los Angeles; F. F. Gundrum, Sacramento; Ray L. Wilbur, Palo Alto.

Term expires 1919, H. G. Thomas, Oakland; F. B. Carpenter, San Francisco.

Committee on Arrangements. On motion, duly seconded and carried, the appointment of this Committee was left to the Council.

Committee on Public Health. The following were elected:

Percy T. Phillips, Santa Cruz.

C. C. Browning, Los Angeles.

John C. King, Banning.

W. A. Sawyer, Sacramento.

N. K. Foster, Oakland

Delegates to the A. M. A.:

For two years: H. Bert Ellis, Los Angeles; O. D. Hamlin, Oakland.

For one year: Victor G. Vecki, San Francisco; H. P. Newman, San Diego.

Alternates to the A. M. A.:

For one year: W. H. Irwin, Oakland; H. H. Sherk, Pasadena; F. M. Pottenger, Monrovia; W. F. Schaller, San Francisco.

REPORT OF THE REFERENCE COMMITTEE.

The following report of the Reference Committee was presented by the Chairman, Dr. F. F. Gundrum, and, after having been read in full, on motion of Parkinson, duly seconded and carried, the report was received and the House proceeded to consider the sections *seriatim*.

Your Reference Committee begs leave to report as follows:

1. *Report of President.* Your Committee realizes that the changes outlined in this communication are of so fundamental a character that it exceeds the authority of this Committee to act upon. The matter should be taken up by the Council and no doubt would require an amendment to the constitution, which matter would of

course be put off for one year from date. (Carried as read.)

2. *Report of Secretary.* Your Committee recommends that the report of the Secretary be accepted and filed. (Carried.)

3. *Report of Council.* Your Committee recommends that the report of the Council be accepted and placed on file. The portion of this report concerning which action by the Society is necessary, is taken up at a later time and in connection with other resolutions bearing upon the same subjects. (*Vide infra*.) (Carried.)

4. *Report of Advertising Committee.* Your Committee approves the attitude of the Committee on Advertising and urges all the members of the Society to assist in every way possible to procure advertisers for the Journal. (Carried.)

5. *Report of Committee on Scientific Work.* This Committee has offered their recommendation concerning the work of the Committee on Scientific Program.

6. *Report of Committee on Arrangements Representing Fresno County Medical Society.* Your Committee recommends that this Society give a vote of thanks to the members of this Committee for their hospitality, and for the many courtesies extended to the State Society during this meeting. (Carried.)

7. *Concerning the Assessment for 1917.* Your Committee recommends that the House of Delegates vote an assessment of \$6.00 per member for the ensuing year. (Carried.)

8. Deleted by the Committee.

9. *Concerning the California Society for the Promotion of Medical Research.* Your Committee recommends that the following resolution be adopted:

RESOLVED, That the Council of the Medical Society of the State of California is hereby requested to give such assistance as they shall deem necessary to the California Society for the Promotion of Medical Research in order to make its work effective; be it further

RESOLVED, That the Secretary of this Society shall by written communication ask the component county societies to grant such assistance as shall be requested of them. (Carried.)

10. *Concerning Separate Section on Gynecology and Obstetrics.* The Committee recommends that inasmuch as there seems to be considerable difficulty in finding space for accommodating all the scientific papers of interest that are offered for each meeting, the Council is hereby urged to investigate the question of division of the meeting into one or more additional and appropriate sections. (Carried.)

11. *Concerning X-Ray Plates.* Whereas this question presents many legal phases, and whereas there has been to the knowledge of your Committee no court decision affecting this matter, we recommend that the subject be referred to the Council for an adjustment of the matter if possible, but in the meantime we advise the taking of two exposures in cases which may become of medico-legal interest later. (Carried)

12. *Concerning the Preparation of a Resolution Concerning the Granting of Charters to*

Medical Colleges. Your Committee recommends the adoption of a resolution endorsing the following proposed act:

There is hereby established a standing committee of four members who shall be respectively the Secretary of the State Board of Medical Examiners, the State Superintendent of Public Instruction, the Dean of the Faculties of the University of California and the Dean of the Medical Department of the University of California, for the following purposes, to wit: When an application shall have been made to the Secretary of State of California for a charter, license, or permit to establish a medical school or any institution to teach the healing art, the said Secretary of State shall require from the applicant or applicants a full statement in affidavit form of the equipment of the proposed school. He shall submit this data to the above described committee and shall not issue said charter, license, or permit until after he shall have received a formal approval of the equipment of the proposed school from the said committee. In this resolution the word equipment shall be understood to include moneys, endowments, lands, or funds of any kind, buildings, books, laboratory and other apparatus to be used in connection with teaching, teachers, instructors, hospital facilities, and any and all other aids to the instruction of students of the healing art. (Carried.)

13. *Concerning the Appointment of a Committee to Confer with the State Social Insurance Commission.* Your Committee recommends that there be appointed by the incoming President, a committee of not less than five members to confer with the State Social Insurance Commission. (Carried.)

14. *Concerning Medical Defense.* Your Committee recommends that the present system of defending malpractice shall be continued. The report of the Secretary and the Council covering the seven years past, during which time this system has been in operation, indicate the increasing value to the members of this Society. We believe that under no circumstances would the Society be willing to abandon this activity. However, many members feel that this safety is incomplete when no provision to pay a possible judgment is provided and many members carry indemnity policies at a considerable annual expense. We believe by the outlay of a small amount that in two or three years a fund could be accumulated, the interest of which would suffice to pay any probable judgment against our members, thus relieving us of continued payment of annual premiums in indemnity policies. (We, therefore, recommend that the Council establish a fund to be used for the purpose of paying judgment against members participating in the accumulation of this fund. Such participation is to be voluntary and the fund is to be derived from subscriptions of \$15.00 per annum for two years from each member who indicates his desire to participate in the benefit of this fund. Should an insufficient number of members indicate a desire to establish such a fund in this way, any

money collected for this purpose shall be returned to the subscriber.)

We, therefore, recommend that this matter be referred to the Council with instructions to take such action as it deems proper in the premises.

On motion of Parkinson, duly seconded and carried, the matter in paragraph 14 which is enclosed in parentheses was struck out, and the following substituted: "We recommend that this matter be left to the Council with instructions to take such action as it deems proper in the premises."

15. *Concerning Those Resolutions that Affect the Operation of the Workmen's Compensation Law.* There were several resolutions offered upon the subject. After due consideration of the various subject matter brought before your Committee, we recommend that the President appoint a committee of not less than five for the purpose of collecting all available information upon this subject and preparing this information for presentation to the House of Delegates at the annual meeting for 1917.

We recommend that no change in the present status be made until such time as the House of Delegates shall be in possession of information which will be supplied by the above mentioned committee.

Respectfully submitted.

F. F. Gundrum, Chairman,
T. C. McCleave,
Geo. E. Tucker.

The report as a whole was then adopted.

NEW BUSINESS.

Dr. Parkinson requested the unanimous consent of the House to introduce the following resolution. Consent having been given, it was introduced and passed by the House.

BE IT RESOLVED, That this body endorses the Keating-Owen bill prohibiting interstate traffic in the products of child labor, and hereby authorizes the President of the Medical Society of the State of California to use all the influence of the Society in the furtherance of this bill.

There being no further business, the minutes of the Second Session were read and approved as read, and the House adjourned *sine die*.

PHILIP MILLS JONES, Secretary.

FRESNO MEETING—THOSE REGISTERED. APRIL 18, 19, 20, 1916.

Adams, L. P., Alameda; Aiken, G. H., Fresno; Alderson, H. E., San Francisco; Alvarez, W. C., San Francisco; Anderson, A. E., Fresno; Anderson, C. W., Los Angeles; Armstrong, J. M., Los Angeles; Arnold, D. E., Fresno; Avery, N. E., Los Angeles.

Baldwin, W. I., San Francisco; Ball, C. D., Orange; Barbat, J. H., San Francisco; Barkan, H., San Francisco; Barnett, G. D., San Francisco; Barnhart, W., Los Angeles; Barrett, G. M., San Francisco; Beasley, S. O., San Francisco; Beerman, W. F., San Francisco; Benedict, W. L., Fresno; Bering, R. E., San Francisco; Bine, R., San Francisco; Birtch, F. W., San Francisco; Black, S. P., Los Angeles; Blackedge, L. N., Tulare; Blair, J. C., Santa Clara; Blake, W. F., San Francisco; Blodgett, T. D., Tulare; Blum, S., San Francisco; Bogle, S. S., San Francisco; Bonyng, C. W., Los Angeles; Bowles, F. H.,

Alameda; Bowman, W. B., Los Angeles; Boyd, W. T., Fresno; Brem, W., Los Angeles; Briggs, G. A., Sacramento; Brinckerhoff, E. E., Alameda; Brown, A., San Francisco; Brown, J. M., Los Angeles; Brown, P. K., San Francisco; Browning, C. C., Los Angeles; Browning, F. W., Alameda; Brunn, H., San Francisco; Bullock, C. T., Sonoma; Bullock, N. P., Santa Clara; Bunnell, S., San Francisco; Burks, F. L. R., Fresno; Butin, M. R., Madera; Byars, A. H., San Diego.

Campbell, F. McL., Mendocino; Campbell, W. H., Santa Barbara; Campiche, P. S., San Francisco; Carpenter, F. B., San Francisco; Catton, J. H., San Francisco; Cecil, A. B., Los Angeles; Chaffin, R. C., Los Angeles; Chiapella, J. O., Butte; Chipman, E. D., San Francisco; Church, B. F., San Bernardino; Clark, W. A., Alameda; Coffey, W. B., San Francisco; Collins, C. D., Fresno; Cooke, A. B., Los Angeles; Copeland, J. A., Kern; Coppedge, W. E., Modoc; Couey, E. J., Fresno; Craig, W. H., San Bernardino; Cross, W. W., Fresno; Craycroft, H. J., Fresno; Cummings, R. S., Los Angeles; Cuttle, F., Kings.

Dameron, J. D., San Joaquin; Davis, B., Merced; Dawson, W. J. G., Sonoma; Dettling, F. E., Los Angeles; Dillingham, F. S., Los Angeles; Dixon, R. E., Kings; Dolan, P. E., Alameda; Dowling, S. W., San Benito; Dudley, W. H., Los Angeles; Dungan, J. F., Tulare.

Ebright, G. E., San Francisco; Edwards, T. C., Monterey; Ellis, H. B., Los Angeles; Ely, L. W., San Francisco; Enloe, N. T., Butte; Enos, M. M., Alameda; Evans, G. H., San Francisco; Eveleth, R. H., Placer; Ewer, E. N., Alameda.

Farmer, L. E., Sacramento; Fish, C. W., Los Angeles; Fishbaugh, E. C., Los Angeles; Fisher, A. L., San Francisco; Fisher, J. T., Los Angeles; Fleischner, E. C., San Francisco; Fleming, L. P., Fresno; Foster, E. C., Kings; Franklin, W. S., San Francisco; Fredrick, M. W., San Francisco; Frick, D. J., Los Angeles; Fry, P. B., Solano; Fuller, R. N., Tulare.

Gatchell, E. F., Butte; Geiger, J. C., Alameda; Gibbons, M. R., San Francisco; Gilbert, W. H., Los Angeles; Gillespie, J. A., Fresno; Girard, F. R., San Francisco; Glaser, E. F., San Francisco; Goodman, Minerva, San Joaquin; Gould, N. B., San Joaquin; Graham, H. B., San Francisco; Graves, J. H., San Francisco; Green, A. S., San Francisco; Griffin, C. F., San Francisco; Grosse, A. B., San Francisco; Gundrum, F. F., Sacramento.

Hablutz, C. E., Santa Clara; Hagadorn, J. L., Los Angeles; Hamlin, O. D., Alameda; Hanlon, E. W., San Francisco; Hare, C. B., Santa Clara; Hare, G. A., Fresno; Hare, J. D., Fresno; Harry, C. R., San Joaquin; Hastreiter, R. F., Los Angeles; Helms, G. L., Siskiyou; Henderson, A. M., Sacramento; Hilliard, C. G., San Bernardino; Hinman, F., San Francisco; Hoag, C. L., San Francisco; Horn, H., San Francisco; Hoisholt, A. W., Napa; Hopkins, H. H., Fresno; Hosmer, C. M., San Diego; Howard, H. W., Portland, Oregon; Howard, J. L., San Francisco; Howe, L. P., San Francisco; Huggins, W. L., Los Angeles; Hughes, A. L. B., Tulare; Hulen, V. H., San Francisco; Hull, J. P., Kern; Hunt, R. H., Lake; Hunter, G. G., Los Angeles; Huntington, T. W., San Francisco; Hutchison, C. W., Fresno.

Inman, T. F., San Francisco.

Jablons, B., San Francisco; Jackson, J. A., Los Angeles; Jacobson, P. N., Stanislaus; Johnson, E., San Francisco; Johnson, P. V. K., Los Angeles; Johnston, H. A., Orange; Jones, C. B., Sacramento; Jones, E., Los Angeles; Jones, P. M., San Francisco; Jones, R. M., Fresno; Jordan, P. A., Santa Clara; Jorgensen, N., Fresno; Judell, M. I., San Francisco.

Kelly, A. S., Alameda; Kenyon, C. G., San Francisco; Kerr, W. W., San Francisco; Kiefer, H. A., Los Angeles; Kiger, W. H., Los Angeles; King, J. C., Riverside; King, M. M., Los Angeles;

Kjaerbye, C. P., Fresno; Kress, G. H., Los Angeles; Krotoszyner, M., San Francisco; Kyle, J. J., Los Angeles.

Lamkin, B. B., Fresno; Langnecker, H. L., San Francisco; Lewis, W. M., Los Angeles; Lilly, W. E., Merced; Lippman, C. W., San Francisco; Lipson, I. M., Tulare; Lockwood, C. D., Los Angeles; Long, S. M., Fresno; Loper, A. N., Tulare; Lucas, W. T., Santa Barbara; Lynch, F. W., San Francisco.

MacGowan, G., Los Angeles; Mack, C. W., Alameda; Madden, T. F., Fresno; Malsbary, G. E., Los Angeles; Manson, G., Fresno; Marsh, O. G., San Diego; Martin, H. R., Riverside; Mathewson, C., Fresno; Matson, R. C., Portland, Ore.; Mattison, F. C. E., Los Angeles; Mays, A. H., Marin; McChesney, G. J., San Francisco; McCleave, T. C., Alameda; McClenahan, H. C., San Francisco; McConnell, A. B., Fresno; McCoy, T. J., Los Angeles; McCullough, F. E., Placer; McKenney, J. H., Fresno; McLean, A. D., Tulare; McNaught, H., San Francisco; Mehrtens, H. G., San Francisco; Melvin, J. T., Tulare; Meux, T. R., Fresno; Miller, A., Tulare; Miller, F. W., Los Angeles; Miller, R. W., Los Angeles; Miller, W. P., Fresno; Milton, J. L., Alameda; Mitchell, C. O., Fowler; Moffitt, H. C., San Francisco; Molony, M., San Francisco; Molony, W. R., Los Angeles; Montgomery, J., Grand Forks, North Dakota; Moore, E. C., Los Angeles; Moore, H. S., San Francisco; Moore, R., Los Angeles; Morgan, J. D., Jr., Fresno; Morton, A. W., San Francisco; Moseley, G. G., San Bernardino; Moulton, D. H., Butte; Mudd, J. L., Merced.

Naffziger, H. C., San Francisco; Neel, J. C., San Francisco; Nelson, C. F., Los Angeles; Nelson, J. E., San Joaquin; Newell, E., Santa Clara; Newman, H. P., San Diego; Nicholson, A. R., Fresno; Nicholson, J. W., Tulare.

O'Brien, J. T., Sonoma; O'Connor, R., Alameda; Offield, A. L., San Mateo; Oliver, H. R., San Francisco; O'Neill, A. A., San Francisco.

Painter, G. L., San Francisco; Paine, J. C., Tulare; Parker, A. S., San Bernardino; Parker, T. A., San Diego; Parkinson, J. H., Sacramento; Peers, R. A., Placer; Peery, J. T., Kings; Peterson, A., Los Angeles; Pettis, J. H., Fresno; Phillips, L. E., Santa Clara; Phillips, P. T., Santa Cruz; Phillips, W. A., Santa Cruz; Pickett, J. C., San Francisco; Pierce, A. T., Alameda; Pinniger, S. E. D., San Joaquin; Pischel, K., San Francisco; Plymire, D. B., San Francisco; Pollock, R., San Diego; Pond, H. M., Alameda; Pottenger, F. M., Los Angeles; Powell, B. J., San Joaquin; Powell, D., Yuba; Power, H. D. A., San Francisco; Powers, L. M., Los Angeles; Preston, A. Q., Tulare; Pringle, J. T., Tulare.

Ransom, D. H., Madera; Reamer, E. F., Stanislaus; Reardan, F. B., Merced; Rehfish, J. M., Alameda; Reinle, G. G., Alameda; Reynolds, F. W., Los Angeles; Richardson, W. W., Los Angeles; Rigdon, R. L., San Francisco; Rinkenberger, F. W., Los Angeles; Rinker, C. L. A., Madera; Rixford, E., San Francisco; Rogers, A. R., Los Angeles; Rogers, F. L., Los Angeles; Rogers, T. L., Los Angeles; Rosenkranz, H. A., Los Angeles; Roth, L. J., Los Angeles; Rowell, H. N., Alameda; Rude, A. E., San Francisco; Ruggles, H. E., San Francisco; Ryfkogel, H. A. L., San Francisco.

Sawyer, W. A., Sacramento; Schaller, W. F., San Francisco; Schmoll, E., San Francisco; Schottstaedt, W. R., Fresno; Schwuchow, W. B., Los Angeles; Sewall, E. C., San Francisco; Sharp, J. G., San Francisco; Sherk, H. H., Los Angeles; Sherman, H. M., San Francisco; Shook, F. M., Alameda; Shulman, L., Los Angeles; Simpson, W., Santa Clara; Skoonberg, A. E., Fresno; Sleeper, K. R., Los Angeles; Smith, D., Alameda; Smith, T. D., Fresno; Smyth, M. H., San Joaquin; Smythe, H., San Joaquin; Soiland, A., Los Angeles; Spalding, A. B., San Francisco; Speed, E. S., Fresno;

Staniford, K. J., Fresno; Steinwand, O. W., Fresno; Stevens, W. E., San Francisco; Stillman, S., San Francisco; Stoddard, T. A., San Francisco; Stover, W. M., San Luis Obispo; Strietmann, W. H., Alameda; Strong, D. C., San Bernardino; Sullivan, J. F., San Francisco; Surryhne, B. F., Stanislaus; Sweeney, A. H., Fresno; Sweet, E., Los Angeles; Sweet, R. B., Los Angeles.

Tait, D., San Francisco; Taltavall, W. A., San Bernardino; Taubles, G. H., San Francisco; Terry, W. I., San Francisco; Thomas, C. P., Los Angeles; Thomas, H. G., Alameda; Thompson, G. E., Fresno; Tourtillott, W. W., Tulare; Trowbridge, D. H., Fresno; Tucker, G. E., Riverside; Tupper, R. B., San Francisco; Twitchell, E. W., Sacramento.

Van Nuys, R. G., Alameda; Van Zwaluwenburg, C., Riverside; Vecki, V. G., San Francisco; Victors, E., San Francisco; Von Adelung, E., Alameda; Voorsanger, W. C., San Francisco; Walker, G. W., San Joaquin; Walker, J. R., Fresno; Walters, P. R., Tulare; Ward, M. W., Yolo; Warmer, C. A., San Bernardino; Welty, C. F., San Francisco; White, C. M., Tulare; Whitten, W. D., San Diego; Wiley, E. H., Los Angeles; Williams, E. H., San Francisco; Williams, R., Los Angeles; Wills, C. A., Alameda; Wills, W. LeM., Los Angeles; Willson, L. R., Fresno; Wintermute, G. P., San Francisco; Witherbee, O. O., Los Angeles; Wolfsohn, J. M., San Francisco.

Yates, J. C., San Diego.

Zeiler, A. H., Los Angeles.

NOTICE!
IMPORTANT!
NEXT MONTH'S JOURNAL
WILL
CONTAIN
A
MOST
IMPORTANT
ANNOUNCEMENT
RELATING
TO
MEDICAL DEFENSE
INDEMNITY

THE CONSERVATION OF VISION.*

By GEORGE H. KRESS, M. D., Los Angeles; Chairman
of the Conservation of Vision Committee of the
Medical Society of the State of California.

Blindness, partial or complete, can seriously handicap a fellow being throughout life, subjecting him not alone to physical misery, but oftentimes also to economic retrogression or relegation. The campaign for the conservation of vision is, therefore, becoming more and more the recipient of serious attention and action by the medical profession, the laity, and the officials of our city, State and national governments.

It may be said that only in recent years has the economic loss accruing from partial or complete blindness really begun to dawn upon us; but in the brief period during which the conservation of vision campaign has been on, the facts and figures which have been gathered are so conclusive and illuminating that there can be no longer any doubt existant as to necessity of action. The proposition now before us is one of methods to be adopted, and of securing the wherewithal with which to put them into force.

For convenience in the discussion of our subject, it will be here dealt with under the three heads of:

1. *Refractive Errors*, or defects of vision, which should be attacked and corrected, if possible, during school age;
2. *Diseases of the Eyes*, which are apt to lead to blindness, with all the economic and personal horror which the word blindness implies, the particular disease here to be discussed being that of gonorrhea; and
3. *Injuries to the Eyes*, the group of shop accidents being here especially referred to.

I. REFRACTIVE ERRORS.

Returning now to the first major group of eye defects just enumerated, namely of refractive errors, particularly those of school children, we are at once confronted with the fact that about seventy per cent. of all school children have physical defects of some type, and that these physical defects of various kinds seriously handicap these children in their physical and mental growth; and that resulting therefrom there is an increased expenditure by the State to give such backward children their education, as well as the other fact that such backward children fall to or take a lower place on the social or economic scale, in case these defects be not remedied, than would otherwise be the case.

The above state of affairs being true, we are, therefore, brought face to face at once with the fact that physical defects of the race have a most important relationship, not only to the happiness and prosperity of individual citizens, but to the welfare of the nation as a whole.

But unfortunately, just as in the case of some of the infectious diseases like tuberculosis, many of those who are already afflicted with defects of vision can have comparatively little done for them; so that the problem in preventive medicine which here confronts us in our conservation of vision campaign is one that must especially aim to reach

* Read before the Eighth Congress of the American School Hygiene Association, Saturday, June 26, 1915, San Francisco, Cal.

the rising generation of Americans, in order that both the causes and consequences of defective vision may be prevented from coming into being.

With about one-fifth of our population of school age (which means in the United States a population of about twenty million school children), and about fifteen million of these children suffering from physical defects of one kind or another, it has been estimated that one-fourth of these millions of school children, namely, about five million of our school children, belong to the group who have defects of vision of one type or another.

Now our schools are estimated to cost about five hundred million dollars per year for maintenance, and granting that backward children who do not advance mentally as they should, mean an increased outlay of money, inasmuch as they require more teachers, and also hold back the classes as a whole, then it follows that with one-fourth of our school children having defects of vision, a considerable portion of this five hundred million dollars annually spent on their education, is not giving the best of results.

In other words, through non-attention to these defects of vision, there is annually spent on the education of these children, much more money than the prevention or cure of these defects would cost.

And that is the particular thought which we must emphasize with our boards of education and other officials of the State, and with the laity whose interest and co-operation we would have in the solution of this problem.

We must show these lay officials and fellow citizens by actual facts and figures, that they are wasting much money and throwing many dollars away, when they refuse to remedy physical defects of school children, if we would secure their full co-operation and assistance in bringing into existence a better state of affairs.

Once the economic waste of foolishly expended public moneys reaches the consciousness of the great mass of taxpayers, it will be time enough to accentuate somewhat the individual misery accumulated in the lives of those who are unnecessarily condemned to actual or partial, or what might be called economic blindness, and their correlated train of pinched or straitened financial circumstances, with existence, in many cases, on an underserved lower social and economic plane.

Or, again, putting the thought in different language, altruistic doctrines along this line will receive a fuller support if our taxpaying fellow citizens realize that taxes will be reduced or conserved, at the same time that vision, for instance, is conserved.

Of the five hundred million dollars annually spent for the education of our school children, it is estimated that about one hundred million dollars annually (or about one-fifth of the total spent) is expended on about three million children (threewentieths of all school children) who have physical defects sufficiently grave to cause them to fall behind in their studies, and who are known as "repeaters." The unfortunate influence of these backward children on their fellow pupils who could make a more rapid mental advance, and the sad results of these defects upon the whole after-lives

of these unfortunate child victims themselves, are altogether too great and too sad to be lightly passed over.

Such a sum of one hundred million dollars, now spent on these defective children, could be far more wisely expended, if it were concentrated on the eradication and prevention of the physical defects responsible for the tardy progress of so many of our school children.

In discussing this elimination of physical defects among our school children, we must at the outset, recognize how closely this work of eradication is related to the medical inspection of school children. We should appreciate also that this medical inspection should not limit itself alone to the children, but should include also the school house environments, in which the children spend so many of their hours of youth. With school houses properly constructed, from the standpoint of sanitation, and the children instructed concerning the hygienic principles involved and applied, one may expect to carry to and help put into effect in the homes of the children, the principles involved in house and personal hygiene. And even if this be not always possible, because of the stubbornness or ignorance of the adult members of the family group, there is still the hope and possibility that these children, when coming into homes of their own, will later apply the principles learned during their school years.

Hygienically constructed school buildings, with special attention to good ventilation, proper lighting arrangements, suitable grouping of blackboards, kinds and height of desks, as well as properly balanced curricula, are some of the factors to be noted in connection with the above.

To get good air and light into a school building implies that adjacent buildings must not be too close (that is, should be a distance of about twice their height away from adjacent school buildings), and the space so cleared can serve a further good purpose as a school playground.

Roughly calculated, a school room should have about fifteen square feet of floor space and about one hundred cubic feet of air space per pupil.

Light should come preferably from the rear and from the left of the pupils, and the window space should ordinarily be at least fifteen or twenty per cent. of the floor space. Windows should have transoms above for ventilation, practically flush with the ceilings, and in large cities where because of property values or the atmospheric conditions, it is not possible to get as good light as usual, recourse may be had to use of some of the so-called prism glasses, or to artificial lighting of the indirect type, although neither of these latter plans is to be especially advocated. The tinting of the walls with the lighter colors of green and gray, for instance, also helps. Blackboards or unglazed surface should be placed away from the source of light.

The above are all matters closely related to the comfort, the health, and therefore also to the mental development of school children; and all medical inspection should include the systematic observation and report on the above and related

factors, in addition to the regular work of inspection of the school children themselves.

It is most gratifying to all who are interested in the proper development of our race, to note the great progress made in medical inspection in schools since its advent as an official movement in France about 1884, and in our own country since its beginning in New York City in 1892, about twenty-three years ago.

The splendid results accomplished during this brief period may be taken as an index of what the future holds in store, not only for our schools, but for our nation.

It should be remembered that phases of this so-called medical inspection work have become so well developed that school nurses can be taught to do effective service where physicians cannot be employed, and that where even school nurses are not available, a little time given by the teachers themselves can give most effective returns.

It has been shown, for instance, that the expense of the examination for defects of eyes, ear, nose and throat, if done by teachers, need not cost a city of 10,000 persons, a greater sum than twenty dollars for its entire school population. Surely, twenty dollars is not an excessive sum to ask in a city of 10,000 persons to spend in an effort to learn what children of those citizens have physical defects worthy of attention and eradication.

The great importance of defects of vision, especially when of considerable degree, lies in the fact that such children fall behind in their classes, grow out of touch with their school work, learn to dislike or hate it, and then drop out of school to plunge into occupational activity for which they are ill-fitted, and because of which mental immaturity they handicap their entire economic and social future; or if they start their career in truancy, drift, perhaps, into the sad group of the vicious or even of the criminal.

As to the examinations of children's eyes, the chart devised by Dr. Frank Allport of Chicago, Chairman of the Conservation of Vision Committee of the American Medical Association, is a simple and yet very effective type, and especially where the work is to be done by a school nurse or a teacher. These splendid charts may be obtained from F. A. Hardy and Company, Chicago, Illinois, at a price of twenty-five cents each for a single copy, or of seven cents each in lots of more than ten.

The questions which are asked concerning vision, in this chart, and which show how simple is the information required to demonstrate the presence of most defects of vision, are the following:

1. Does the pupil habitually suffer from inflamed lids or eyes?
2. Does the pupil fail to read a majority of the letters of the number 20 line of Snellin's Test Types (printed on the chart) with either eye?
3. Do the pupil's eyes and head habitually grow weary and painful after study?
4. Does the pupil appear to be cross-eyed?

The above simple questions and tests practically determine a defect of the eyes or of vision, and the child is then to be sent to a specialist or to an eye clinic where a thorough examination may be made,

with the eyes, if necessary, under the influence of a cycloplegic, and the proper glasses, if needed, ordered, or other defects remedied.

A sample of the Allport Chart, which is passed around, gives a further insight into its scope.

2. DISEASES OF THE EYES.

Turning now to the second major topic or group of eye defects to be considered in our outline, we are confronted with the venereal disease known as gonorrhea, which, when it attacks the infant, is known by the more familiar name of ophthalmia neonatorum.

The horror of this disease is its virulence and the intensity of the inflammatory process which it calls into being, so that when an eye is so attacked, it is, even under the best of treatment, always in danger of being destroyed.

It is estimated that this disease is responsible for from fifteen to twenty-five per cent. of all the blind persons in our country.

Leaving out of account the horror of the darkness in which these unfortunate persons must dwell, we are here also confronted with a splendid example of economic waste.

Thus, as regards education, the State usually must annually pay about ten times as much (or about \$340.00) as against the lesser cost of educating a child not blind (which is only about \$30.00). The cost to the State of a dependent blind person has been estimated to be about \$10,000.00, so that with almost 100,000 blind persons in our country, there is a yearly expenditure of millions of dollars in the care of such persons by the State.

Contrast now the expenditure of the above millions of dollars, on care after the mischief is done, with that accruing through the use of a one or two per cent. solution of silver nitrate, applied to the eyes of all new-born infants, and by means of which treatment this horrible and pathetic disease could be practically prevented. If a single penny will protect the eyes of two new born children from blindness, how utterly foolish and cruel not to so expend it, instead of spending much greater sums for the care of the thousands of dependent blind, who become blind because such treatment was not given, and whose lives are often filled with days of misery as well as of perpetual darkness.

We should, therefore, educate the public to demand the use of this silver nitrate preventive solution by physicians and midwives, and have laws to enforce its use, as well as arrangements for its distribution through State and other boards of health, so as to make the use of this one per cent. silver nitrate solution easy and universal in all medical and midwifery practice.

3. OCCUPATIONAL INJURIES.

The third group of factors causing blindness, to be here briefly noted, are those relating to injuries.

This portion of our subject can be briefly covered by simply stating that in all occupations where foreign particles, such as fragments of steel, or particles of molten metal, acids, or other caustics are liable to fly off from tools or implements or other apparatus, that our laws should insist that

protective glasses be given the workmen, and that protecting shields as well as signs calling attention to the liability and special danger of such apparatus be in evidence and in use in all such shops.

The workman should likewise be educated not to permit a fellow workman to attempt to remove such foreign particles once they become lodged in the eye, lest infection, serious direct damage, or the danger from delay in serious injuries, lead to grave danger to the integrity of the injured eye.

Happily, our State compensation laws, now coming into operation in many of our commonwealths, are in this connection bringing about a much better state of affairs than formerly, for now the employer, the insurance companies, and the workmen themselves all find it to their individual and joint advantage to pay some attention to these matters.

The above are a few phases of the conservation of vision movement, and they indicate why this propaganda should appeal to all who have the comfort and happiness of the individual, and the welfare of the State at heart. It is gratifying to know, too, that each year, real advance is being made in the solution of this great problem; and with a consistent, persistent, educational campaign, there need be but little doubt that there will be a decided decrease in the incidence of blindness, and of accidents or visual defects, which are now so frequently responsible for partial or total loss of vision, with all the attendant horrors of blindness and of the misery associated with cosmetic or economic inferiority.

HUMAN CASES OF RABIES IN CALIFORNIA AND THEIR TREATMENT.*

By J. C. GEIGER, M. D., Bureau of Communicable Diseases, Berkeley.

The first case of rabies in human beings in California occurred in March, 1899, and was reported by Radebaugh.¹ The remaining cases, 33 in all, occurred during the epidemic of rabies that, since 1909, has swept completely through California. Colburn,² Black and Powers,³ Sawyer,^{4,5} and myself⁶ reported that up to April 1, 1913, the toll of human deaths from rabies in California was 18. Between April 1, 1913, and March 31, 1916, there were 15 cases. These are as follows:

1. A. C., a man, age 23 years, died of rabies on May 22, 1913, in San Francisco.

The patient had been bitten by a dog about two months before. Portions of the brain tissues were examined at the laboratory of the San Francisco Health Department and at the State Hygienic Laboratory, and many large Negri bodies were found. Animals inoculated with emulsion of the brain came down with characteristic symptoms of rabies.

2. J. B., a child, age 4, died of rabies in San Francisco, May 26, 1913.

She had been severely bitten on April 25th by a dog which was found positive on microscopical examination at the laboratory of the San Francisco Board of Health. The bite on the face, about one inch below the right eye, was severe. It was

cauterized within an hour, and the child was placed under the Pasteur treatment within 24 hours. On May 20th, four days after completion of the treatment, she became ill, the principal symptoms being fever. On May 23rd, her temperature reached 105.2. The patient was restless and nervous, sleeping at intervals, but was able to take both milk and water. On May 25th, when given small quantities of liquid, she showed marked distress upon attempting to swallow.

Parts of the brain tissue were sent to be examined at the laboratory of the San Francisco Board of Health and the State Hygienic Laboratory. Negri bodies were found on microscopical examination and rabies produced in rabbits by inoculation with the brain tissue.

3. C. R. L., a man, age 30, residing near Sebastopol, in Sonoma county, died of rabies at Santa Rosa, September 17, 1913.

The patient was bitten deeply on his right wrist by his dog on August 12, 1913, while hunting. The dog had been acting queerly. The first symptoms of rabies in this case appeared September 13th. The patient consulted his physician, stating that he had not been able to sleep because of pain in both arms and shoulders and in the back of his neck. The patient was rational, but seemed nervous and uneasy. He was able to drink fluids but had difficulty in swallowing. His physician telephoned to the State Hygienic Laboratory and was informed of the announcement of Moon⁸ in the Journal of Infectious Disease that massive doses of quinine had cured rabies in dogs after symptoms had been pronounced. Quinine in 40 grain doses in physiological salt solution was administered intramuscularly, on September 16th. In the evening, the same dose was repeated intravenously. At this time, the patient could drink with great difficulty. On the morning of September 17th, another 40 grains of quinine were given intravenously, making 120 grains of quinine given, 80 of which intravenously, 12 hours apart. Later in the morning the patient was entirely unable to swallow fluid. The patient died, following prolonged convulsions.

Portions of the brain tissue were sent to the State Hygienic Laboratory for examination. Microscopical examination of the hippocampus showed many intracellular Negri bodies within the ganglion cells, and rabies was produced in rabbits by inoculation with the brain tissue.

4. F. I. W., a child, aged 5½ years, died of rabies, in New Castle, Placer County, on July 25, 1913. The patient was bitten on the arm by a strange dog on July second. Rabies was not suspected in the dog. On July 23rd, the patient showed a general nervous irritability, with vomiting at frequent intervals. The patient evidenced great desire for water. Saliva drooled from the mouth throughout the day. Pupils were dilated. On July 24th, she showed extreme restlessness with beginning incoherent speech and movements. She had a temperature of 104 at 4 p. m. That evening, there was marked delirium and patient picked at bed clothes and tore her finger nails on the bed. Constant expression of terror on face. Incessant thirst was present but attempts to drink not only caused vomiting but spasm of the glottis. The whole musculature of the throat became spasmodically contracted and the water was forcibly ejected. Vomiting of dark bloody material occurred.⁷

5. G. K., a Japanese, male, age 32, died of rabies at Los Angeles, August 6, 1913.

This patient was bitten on the arms by a rabid dog at San Bernardino, on June 30, 1913. On August 4th, he had distinct symptoms of rabies. This man had been instructed, after the biting, to take the Pasteur treatment, furnished by the State Board of Health at Los Angeles, but he had not followed the advice. There was no autopsy.

6. P. G., of Lincoln, a man, age 57, died of rabies at Auburn, November 15, 1913.

* Read at the Forty-fifth Annual Meeting of the Medical Society of the State of California, Fresno, April, 1916.

On October 27th, this patient noticed his dog acting strangely and concluding that the animal had been poisoned, grasped the jaws with his hands, attempting to force them apart. The dog was killed very soon after the man was exposed and the brain was not examined. The patient claimed that the dog did not bite him. However, the supposition is that there was an abrasion or scratch on his hand when he was handling the dog. On November 14th, 17 days following this instance, he consulted a physician and complained of pain in the abdomen and of being unable to swallow. While in the physician's office, he called for a glass of water. In taking the glass in his hand, he shook from head to foot and on getting it to his lips, he would blow the water away, not attempting to swallow. When seen again that evening, he was in a highly nervous condition. When seen on the following morning, all symptoms had increased. 15 grains of quinine muriate were given intramuscularly. The patient died 1½ hours later. Numerous and unquestioned intracellular Negri bodies were found in the brain tissue.

7. C. B., a child, age 5, died at Oxnard, Ventura County, on November 9th, 1913.

This patient was severely bitten on the ear on September 30, 1913, by a rabid dog. The wound was not cauterized. Rabies in the dog was proved by examination at the State Hygienic Laboratory. The boy was placed under the intensive Pasteur treatment at the Southern Branch of the State Hygienic Laboratory on October 5th. This patient was treated at the same time with four other persons, who had been bitten by the same dog, all of whom remained well. Treatment was completed on October 25th. On November 9th, 15 days after the completion of the treatment, the patient's physician was consulted in regard to the nervous condition which had lasted ten days. The child was noticed to be highly nervous, having frequent spasms. Quinine and urea were administered. He refused everything by mouth except the smallest sips of water. Toward the end, he tried to scratch and bite objects which were near by. One dose of ten grains of quinine was given intravenously at 2 p. m., the patient dying at 5:45 p. m. It was necessary to control his convulsions with chloroform.

The physician in charge of the case mentioned the especially interesting fact that in the morning before the convulsions, the child was constantly rubbing the ear which had been bitten by the dog several weeks previously.

8. W. E., a child, age 5, died of rabies, Oakland, on March 25, 1914.

This patient was bitten on the face February 11th, 1914, by a dog which was proven rabid by microscopical examination at the Oakland City Laboratory. The bite consisted of two cuts one inch long over the right eye, one cut on the right eyelid and two rather deep tooth punctures in the right cheek. The biting occurred about 9 a. m. and he was taken by his mother to their physician for treatment. Tincture of iodine was used on the wounds. The boy was brought to this laboratory February 12th and was immediately placed under the Pasteur treatment. The patient reported in person at the laboratory on March 18th, perfectly well. On Monday, March 23rd, 18 days after the completion of treatment, his mother telephoned to the laboratory and stated that the boy was ill. When seen, the following history was obtained: The boy had gone to bed very nervous the night before and would not eat. He slept poorly that night. The next morning, his nervousness had increased and he refused food. His mother said he would "cry out," especially when food was forced on him. When seen, the patient was lying quietly in bed and recognized the persons around him. Examination showed all reflexes slightly increased and pupils widely dilated. Temperature by axilla was 101.5. An effort to

take the temperature by mouth caused tremendous excitement and brought on a convulsion. When a glass of water was forced upon him, he cried out, raised himself in bed and tried to push it away. After some insistence, he was able to drink a little but the effort caused him severe pain and another convulsion. The diagnosis of rabies having been made, one dose of 7 grains of quinine and urea hydrochlorate was administered intravenously and afterwards quinine was given in 5 grain doses by rectum every four hours. All symptoms gradually increased. The patient died on Wednesday, March 25th, 1914, just six weeks after being bitten and three weeks after the completion of the Pasteur treatment.

Parts of the brain were sent to the Oakland City Laboratory and the State Hygienic Laboratory for examination. Many intracellular Negri bodies were found on microscopical examination. At the State Hygienic Laboratory a rabbit was inoculated intracranially with some of the brain tissue. The rabbit came down with symptoms of rabies and died two weeks after inoculation.

9. G. S., a man aged 65, died of rabies at Anaheim, Orange County, on December 7th, 1914.

About October 1st, while leaving town for his ranch, he was bitten superficially on the index finger of the right hand by his pet dog. The dog acted queerly for several days after this and died within a week. The supposition was that the dog was poisoned, and the animal was buried without saying anything further about it. On December 5th, 66 days after having been bitten, the patient complained of pains in the muscles of the limbs and back, the pains being especially localized in the muscles of the back of the neck. He complained of what he called a tight feeling in the throat and feared strangulation. The symptoms came on in periods of every two or three hours. An intense headache developed and there was difficulty in swallowing. On December 6th, the case was very restless and had spasms of all muscles. Respiration was labored. On December 7th, swallowing became impossible and there was profuse sweating. Spasms of the muscles of the trunk and limbs had to be controlled by chloroform. The patient died in convulsions. No autopsy was made.

10. A child, E. DeG., aged 3 years and 9 months, died of rabies at Hanford, Kings County, on December 28, 1914.

This case was bitten by a dog proven rabid on microscopical examination at this laboratory on December 6, 1914. The bite was over the left eye, and about one-half inch long. The wound was swabbed with pure iodine about three-quarters of an hour after the biting. The Pasteur treatment was begun five days after the biting occurred, and there was no interruption in the treatment until the fifteenth day, when the child showed symptoms of extreme nervousness and fear. There was difficulty in swallowing. Convulsions appeared and were brought on by any excitement, movement, or sound. The child was in constant tremors or spasms. Saliva drooled from the mouth and there was frequent vomiting of a brown greenish fluid. Morphine used to control the convulsions was of very little effect. The child died in convulsions on December 28, 1914, 36 hours after the beginning of symptoms. There was no autopsy.

11. Z. D., a boy, aged 5 years, residing at Santa Cruz, Santa Cruz County, died of rabies in Santa Cruz on February 19, 1915. This patient was bitten on January 4, 1915, on the right hand by a dog which was found rabid on microscopical examination at this laboratory. The bite consisted of a severe, deep wound, nearly to the bone, on the outer edge of the right hand. There were lacerations extending in several directions. The wound was not cauterized. The administration of the Pasteur treatment was begun on January 10th, 1915, and should have been completed on

January 30, 1915, but, owing to the severity of the wound, the fact that it was not cauterized, and the delay in appearing for treatment, the regular scheme of treatment was supplemented by five extra days.

On February 17, 1915, 44 days after the patient was bitten, he complained of pain in the back and joints. His temperature was 101, pulse 120. On February 18th the symptoms were the same except that he complained of a severe headache and pain in his eyes. On February 19th his temperature was 102.6, pulse 138, and respiration 30. He swallowed with difficulty. Every time he tried to drink his jaws would set. He wanted a light kept close to his face, as he could not see well. There was some twitching and jerking, and later opisthotonus was noted. He complained of a tightness in the chest and felt as though he could not breathe. Later in the afternoon he became somewhat violent, fighting and scratching. Paralysis of the muscles of respiration was most marked, and there was a large amount of drooling of saliva. The symptoms became worse and the patient died that evening. An autopsy was held and the brain was removed and sent to the State Hygienic Laboratory for examination. Prolonged microscopical examination failed to reveal any Negri bodies, and two rabbits were inoculated intracranially on February 24th with some of the brain tissue. Both rabbits came down with symptoms of rabies and died two weeks after inoculation. Microscopical examination of their brains showed many typical intracellular Negri bodies with granules.

12. M. P., aged 3 years, from Watsonville, California, died from rabies in San Francisco on February 23, 1915. On January 20, 1915, this case was bitten through the tongue by a dog which was proved rabid on microscopical examination at this laboratory. The bite was through the tip of the tongue on the right side near the edge, this edge being torn when the tooth was withdrawn. The wound was treated with tincture of iodine one hour after the biting. On January 28, after a delay of eight days, the child was brought to this laboratory and was immediately placed under the Pasteur treatment. The course of treatment was uneventful up to February 15, the last day the child showed up at the laboratory. The mother telephoned that the case had a severe cold, and temperature. They were asked to have a physician see the patient, and Dr. J. F. Sullivan of San Francisco was called in. We were informed by him that the child had not eaten since Tuesday and insisted on lying down and seemed somewhat in a stupor. The temperature by rectum was 105. The reflexes were normal. There was no dilatation of the pupils but there was a constant flow of thick, ropy saliva from the mouth. The case was extremely nervous. Rectal temperature 106, pulse 132. There was considerable twitching of the hands and picking at the bed clothes. The head was inclined to turn to the left side. The pupils reacted and there was a tendency to roll the eyes upward. The flow of saliva was somewhat decreased since it was first noticed, and it was rather frothy. The child swallowed easily and took nourishment. All reflexes were slightly increased. About ten minutes after taking some nourishment there was considerable vomiting. On the afternoon of February 20, three days after the beginning of symptoms, the patient had a convulsion lasting for several minutes followed later by another which was continuous for about an hour. These convulsions were controlled by ether, but continued at intervals all during the night. The following day there was frequent vomiting and a slight cough, and the patient muttered occasionally. She rested quietly for a few minutes and then there would be a period of excitement followed by a peculiar crying. An erythematous rash was noticed. There was a tendency to bite the tongue. On February 22nd, convulsions were

frequent. The hands and legs would relax but the head was thrown backwards. The erythematous rash appeared frequently during the last twenty-four hours, disappearing within a few minutes. In the afternoon the patient was in a comatose condition, with intervals of twitching. Opisthotonus was present before death. An autopsy was held and the brain was removed. Microscopical examination and animal inoculation at the State Hygienic Laboratory and in the laboratory of the San Francisco Health Department were positive for rabies.

13. A. J. W., a man, 39 years old, died of rabies in Emeryville, Alameda County, on April 7, 1915. On Sunday, March 14, the patient was bitten by a dog on the palmar surface of the middle finger of the right hand. There were several dogs around him fighting. The patient was bitten while endeavoring to separate them. The dog doing the biting could not be found. On April 4, three weeks after the biting occurred, the patient became very restless and nervous, and complained of having trouble in swallowing. He had pains which extended up his right arm to the shoulder and a short distance into his back. The patient was unable to sleep at any time after the onset and ate very little during his illness. His temperature was 101. The patient could not swallow water, and if he was induced to take some he would spit it out violently. He was somewhat delirious during the night. On April 6th he could not be controlled, and tried repeatedly to get out of bed. The administration of morphine did not keep him quiet. He was very nervous and apprehensive, and picked at the bedclothes. On April 7th, the fourth day of his illness, he began having convulsions, and endeavored to bite his attendants. He would attempt to talk even during the convulsions. He apparently had an extreme fear of water and would shake violently when it was offered to him. The patient died later in convulsions. No examination of the brain was made.

14. D. N., a child 3 years old, died of rabies in Los Angeles on June 9, 1915. This patient was bitten through the eye by a stray dog on May 24, 1915. The dog disappeared and was not found. The wound was cauterized but the Pasteur treatment was not administered. On June 6, 13 days after she was bitten, the child refused to eat or drink. On June 8th she was transferred to the County Hospital, Los Angeles. There was a general nervousness, frequent catching of the breath, and occasional fits of screaming. Due to the administration of bromides and chloral, the fits of screaming ceased, but a general nervous condition was constant, the child frequently catching its breath and constantly keeping the hands in motion. The patient appeared very alert and constantly picked at some article with her hands. The temperature ranged from 102 to 104. She died in convulsions. No examination of the brain was made.

15. M. B., 15 years old, died of rabies on July 29, 1915, at Bakersfield, Kern County, California. About four weeks before the death of this patient he was bitten by a stray dog. The wound was on the right ear, a small portion of his ear being taken off. On July 19, a physician was consulted because of a high temperature and an extremely nervous irritability. During the night the patient's general condition became worse, the nervous irritability increasing. The patient died in convulsions on July 20. An autopsy was held and showed nothing except hyperemia and oedema of various organs including the brain. Part of the brain tissue was sent to the State Hygienic Laboratory in formalin for diagnosis. Owing to the material used in the fixation, it was impossible to make an animal inoculation. After examining numerous stained sections of portions of the brain sent, we were unable to find anything suspicious of rabies.

A STUDY OF THE CASES.

Of the thirty-three cases of rabies occurring during this epidemic, nine were having administered the Pasteur treatment or had completed the regular course. Of these, three came down with definite symptoms on the 17th day of treatment and one on the 19th day. Of the remaining, two showed symptoms in four days, two 15 days, and one three weeks after the completion of the full course of treatment. These facts are extremely interesting because Pasteur, in his experiments on dogs, showed conclusively that the full effect of anti-rabic vaccine did not manifest itself until 15 days after the completion of the treatment. Considering that full immunity is not established until the expiration of this time, only three of these cases are true failures of the treatment. The extreme virulence of the virus, as demonstrated by the short incubation period in these cases, is sufficient evidence against any delay in appearing for the treatment. Again, this short incubation period makes plain the limitations of the Pasteur treatment because its use did not check the disease, owing to the recognized slowness of effect. Twelve of the cases were bitten in the face and two were attributed to the inoculation of the virus into scratches and wounds with the saliva of the animal doing the biting. One case was bitten through the tongue. The balance of the bites were on numerous parts of the body. The shortest time of death after being bitten was 16 days. This occurred in two instances, both patients being bitten on the face. Of the remaining cases, death in six occurred three weeks after being bitten, in two four weeks, in seven five weeks, in two six weeks, in one seven weeks, in three eight weeks, in two nine weeks, and in one eleven weeks. The duration of illness in the majority of instances was three days, the longest being ten. In every instance but one, and that by a cat, the bites were caused by dogs. In only six of the cases were the wounds cauterized at all, five of these being with nitric acid. In fourteen instances, the diagnosis of rabies was proven by microscopical examination and animal inoculation, in three by microscopical examination alone, and in three by animal inoculation alone, and in fourteen by symptoms. We have records of two cases of pseudo-rabies occurring in human beings in which the clinical diagnosis was justified by the symptoms presented. In one, the length of the illness coupled with the fact that the animal doing the biting was well and from the later symptoms presented by the patient, was proof that he was a maligner. In the other case, the diagnosis of hysteria was borne out by the duration of the illness and its recurrence at the will of the patient.

It will be noted that every sedative used failed to control the nervous condition in any way whatever. In four of the cases, quinine was used during the course of the disease without any effect. This bears out the experimental results obtained by myself with the use of quinine in rabies in dogs. In two of my experiments the control ani-

mals died from the effects of the quinine before the death of the other animals with rabies. A copy of the report of the committee of inquiry into the Pasteur treatment, of which James Paget was president and Joseph Lister a member, obtained from the United States Consul at London, is on file at the Bureau.

This report calls attention to the failure to have effect in cases of rabies of many drugs, among which was quinine. Therefore, Moon's⁸ advocacy of the use of quinine was not original and, as shown by this committee, as well as our experiments, is of no avail whatsoever in the treatment of rabies.

Taking into consideration the knowledge that we have at this time of the disease, it is obvious that treatment for rabies, in its active stage, must still remain palliative.

References:

- ¹ Radbaugh, J. M. Quoted by Black and Powers, California State Journal of Medicine, Nov., 1910, Vol. VIII, pg. 370.
- ² Colburn. Quoted by Black and Powers, California State Journal of Medicine, Nov., 1910, Vol. VIII, pg. 371.
- ³ Black, S. P. Southern Calif. Practitioner, Feb., 1911, Vol. XXIX, pg. 78. Black, S. P., and Powers, L. M., California State Journal of Medicine, Nov., 1910, Vol. VIII, pp. 309-312.
- ⁴ Sawyer, W. A. "Rabies in California." California State Journal of Medicine, July, 1911, Vol. IX, pp. 294-298.
- ⁵ Sawyer, W. A. "Rabies and Its Present Status in California." California State Journal of Medicine, August, 1912, Vol. X, pp. 318-329.
- ⁶ Geiger, J. C. "Work of the Pasteur Division of the State Hygienic Laboratory." California State Journal of Medicine, August, 1913.
- ⁷ Allen, Ralph E., and Horne, F. L. California State Journal of Medicine, October, 1913, Vol. XI, pg. 408.
- ⁸ Virgil H. Moon. "The Effect of Quinine on Rabies in Dogs." The Journal of Infectious Diseases. Vol. XIII, pp. 165-170.

THE CONSERVATIVE TREATMENT OF FRACTURES OF THE LONG BONES AND OF WOUNDS COMPLICATING THEM—A PAPER IN ORTHOPEDIC SURGERY.

By JAMES T. WATKINS, M. D., F. A. C. S.,
San Francisco.

Fracture work is now generally recognized as coming within the activities of the orthopedic surgeon. Further, students of contemporary medical literature comment upon the fact that of late years most, if not all, positive advances in conservative fracture work have been made by orthopedic surgeons. The present paper, which is in no wise original, but which represents the beliefs and practices of the writer, attempts to outline, from the viewpoint of an orthopedist, the principles, for the most part mechanical, which underlie fracture work.

What might be called "the exciting cause" of this paper has been the group of very unfortunate results following fracture work which the writer had occasion to review while acting as one of its medical referees for the California State Industrial Accident Commission.

"The predisposing cause," to continue the metaphor, was Joseph Bloodgood's review of fracture work for Progressive Medicine, 1911, from which the following quotations seem apposite. "In my mind," says Bloodgood, "the most important contribution of Mr. Lane is the remark that *people should demand better results in recent fractures.*"^{*}

* Italics are the writer's.

And again, "Surgeons with no orthopedic training often fail to get perfect results when the operative part is above criticism. This failure is due to the neglect of orthopedic apparatus in the after-treatment."

Nothing admits of more difficulty in the formulation of rules of procedure nor calls for nicer surgical judgment than the treatment of presumably infected wounds when complicating injuries of tendons, of bones or of joints.

Dr. Murphy of Chicago warns repeatedly against introducing fingers or instruments into the wound where there is a compound fracture. This is unquestionably good advice. For example, where a spicule of a fractured bone has been thrust through the skin, it is good surgery to snip it off with the forceps, straighten the limb, apply a dry sterile gauze dressing and await developments. In such a case I should also paint the skin with tincture of iodine. In nine times out of ten within a week the wound in the skin will have healed and the physician will find himself confronted by a simple fracture. In the tenth case, upon the first evidence of the presence of infection the skin incision should be enlarged and the wound drained from the bottom.

Where very extensive wounds are manifestly infected, but from the location and nature of them drainage is good, and where efforts at cleansing must necessarily lower the vitality of already devitalized tissues it is good surgery to apply loose sterile dressings, immobilize in a position which will relax the soft parts and await results. In this relation the following case is cited as an example: The writer saw in consultation a gentleman who had been run over by an automobile and had sustained injuries which left the interior of both knee joints communicating through dirt-infected wounds with the outer world. The wounds were in the postero-external and postero-internal aspects of the respective limbs and freely gaping. The attending surgeon applied large loose sterile gauze dressings and immobilized in partial flexion. The wounds healed uneventfully, though slowly because of the lowered vitality. At a subsequent operation the tissues were found to be infiltrated with particles of dirt which had become encapsulated. (This patient was subsequently seen at his surgeon's office whither he had walked without assistance. There was free motion in both knees.)

The surgeon to one of the great public service corporations sees large numbers of infected wounds occurring in vigorous young men. From the nature of the men's occupation these wounds are usually full of grease and grime. In such cases he regularly removes the grease and dirt with gasoline and alcohol and then applies a large campho-phenol and gauze dressing. When infection occurs under these conditions it is of a low grade and easily controlled. Unless one can be certain of his campho-phenol it is best not used. Carbolic acid absorption and burns are apt to occur if the solution has not been correctly prepared. Instead of campho-phenol a saturated solution of magnesium sulphate may be used.

Many surgeons still give the parts a thorough

scrubbing with soap and water after shaving and apply antiseptic lotions. After enlarging the wound they pack to the bottom with gauze wet in an antiseptic solution. That such treatment must inevitably disseminate more thoroughly whatever infection is present at the same time that it tends to prepare the tissues for infection by lowering their resistance will be apparent to anyone with surgical sense.

Wherever tendons have been severed in open wounds, the limb should be immobilized in that position which best relaxes the affected parts. When the wound has healed the severed ends may be caught and sutured through a fresh incision made under aseptic precautions.

PRINCIPLE OF TREATMENT.

1. Where infected wounds communicate with injured tendons, bones or joints, treat as for an infected wound. When the infection has subsided treat the fracture or injured tendon.

2. Always give nature a chance to combat the infection by avoiding further diffusion of the latter or lowering vitality through unwise surgical zeal.

ON FRACTURES.

The attention of the medical profession might profitably be arrested by the report of a special committee of inquiry appointed by the British Medical Association to review the end results in fracture work. Of the 2596 personally investigated cases in which no open operation had been performed 1422 or 53.6% showed results which were both anatomically and functionally good. Sixteen and one-half per cent. were anatomically bad but functionally good. That is, there were 70.1% of good functional results in all.

Of all cases submitted to operation 78 were secondary, when it was found that conservative treatment was not maintaining good position. In this group of 78 secondarily operated cases 60% of good functional results were obtained. Eighty-three cases of nonunion which came to operation gave only 38% of good functional results.

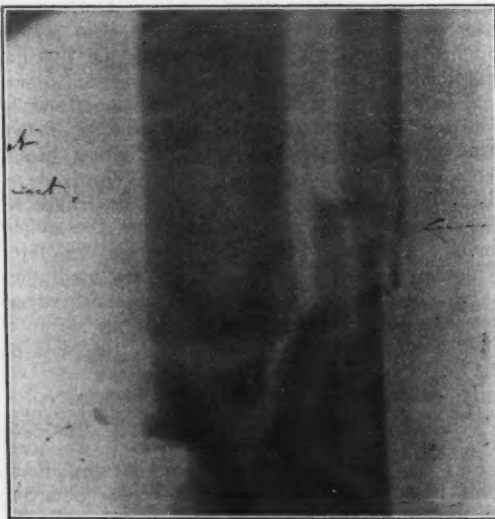


Fig. 1—Overriding but good alignment.

In all, 147 cases were investigated which had been submitted to primary operation. They gave 79% of cases with good functional and good anatomical results. There has been a tendency to take comfort in the idea that many cases in which the anatomical reposition of fragments is not good, end in a good functional result. This is not borne out by the committee's investigations. The committee's statistics show that good anatomical results give 90.7% of good functional results while poor anatomical results give but 29.7% of good functional results.

These statistics furnish ground for serious reflection. At the first glance the treatment of fractures by open operation would seem to be preferable. In this relation, however, as long ago as 1911 Dr. Joseph Bloodgood had collated the following opinions (subsequently corroborated by a vast deal of clinical evidence) which are too weighty lightly to be disregarded and which sound a note of warning with regard to indiscriminate attempts at setting fractures by open operation. Ransohoff is of the opinion that it is one of the most dangerous of operations, except in the hands of an expert. Edward Martin of Philadelphia emphasizes the importance of having proper implements and appliances and follows Lane's technic. Lund agrees with Martin. So does Murphy of Chicago. Hessert voices eight important don'ts dealing with when not to operate, and so on.

Finally Bloodgood himself says "It is not surgery for the inexperienced. Operations for appendicitis, gallstones and intestinal suture, are as a rule, much less difficult than many of the operations for fracture. I would advise the surgeon who suddenly decides to begin the open treatment of fractures to arm himself with Lane's instruments and if possible to witness his technic." (*Progressive Medicine*, 1911.)

It is certain that the very great majority of physicians who are called upon to treat fractures have not had opportunities to observe Mr. Lane's technic nor to acquire his instruments. No small percentage of them will not even have access to the operating rooms of a first-class hospital. A more general recognition of these facts is certain to create in the mind of the practitioner of not more than average surgical advantages a revulsion against the open operation and to cause him to pause and consider whether a clearer recognition of the principles underlying conservative treatment and a more accurate and consistent application of them may not in his hands afford a safer, a simpler, and a surer method of meeting the problems presented by this group of cases. To practitioners of this class this paper is addressed.

What then are the principles underlying the conservative treatment of fractures? First, *every fracture* must be thought of as a *potential deformity*; that is, it will result in a deformity if its tendency to do so is not anticipated by appropriate treatment. Again deformity leads to impairment of function. In considering treatment the aim is to seek out the safest, quickest and easiest way of restoring function, i. e., to repair the break in the bone without injuring anything else in doing so.

In a fracture of a long bone there must be secured an alignment of the fragments which is mathematically correct. Then the axes of movement of the joints at either end of that bone will retain their relative positions and the stresses of muscular action will act across these joints in normal lines or planes. And here let me pause to tell you that *if you would hold a long bone you must control the joint at each end of it.*

Incorrect alignment must result in changed mutual relations of the joints at either end of a bone and in abnormal muscular stresses across these joints, with consequent deformity and interference with function. End to end apposition is in no wise so important as correct alignment, though greatly to be desired.

The conservative treatment of fractures implies their treatment by manipulation and external splints. The purpose of a splint is first to maintain correct alignment and second to immobilize the parts. Since the parts to be splinted are cylindrical and not flat, cylindrical splints are to be preferred to flat ones. A flat splint will touch a cylindrical limb along a narrow line only. To attempt to immobilize a cylindrical limb upon a flat splint may call for the application of sufficient force to cause the parts above and below the fracture to be pulled out of alignment. The treatment of fracture of a single bone of the forearm constitutes the only exception to this rule.



Fig. 2—Pott's fracture properly set; X-rayed while in cast.

Cylindrical or trough shaped splints may be made either of metal or of plaster of paris. In the first instance they can be cut from thin sheet iron plates of No. 24 wire gauze thickness. They can then be bent or twisted as desired and adjusted easily to the body contours. They should be padded with felting or sheet wadding. Plaster of paris may be applied over cotton wadding or stockinette either in the form of a swathe or by circular or spiral turns of plaster bandages. In the latter case such a splint is best split up the middle longitudinally as

soon as the plaster has set, or it may be split on either side in a frontal plane so as to create an anterior and a posterior valve splint. The plaster of paris bandages should be applied in even smooth turns about a limb but not drawn tightly. To apply them tightly renders probable a displacement of the fractured ends and faulty alignment. A tight splint constitutes a hindrance to that reactionary swelling which is so essential a preliminary to rapid repair.

Where fractures are near or enter into joints, true alignment, especially of the axis of movement, is essential. In treating such fractures it must also constantly be borne in mind that small fragments of bone may get between the bones and block joint movement or exuberant callus formation may hinder it. The muscles about such a joint may be employed to help splint fractures near it or, if disregarded, they may offer a permanent obstacle not only to alignment but even to union.

All fractures must be immobilized, and of fractures near or into joints the following generalization may be accepted as a principle of treatment. *They should be immobilized in the extreme of that position which normally they find the greatest difficulty to assume.* Fractures of the elbow (except those of the olecranon) should be put up in hyperflexion; fractures of the neck of the femur, in maximum abduction, etc., etc. By applying this principle a "right of way" is maintained for the one component of the joint upon the other.

The question "when may motion be begun" where a fracture is near a joint is an important one. The answer is when the joint has ceased to be tender to palpation. If 5° to 10° of motion is found to be present after this joint tenderness has subsided a favorable prognosis may be given. Next the joint may be permitted to be moved through a small range of motion. If after two to three days this motion has decreased in amount, if the joint is found to be stiffer, this fact must be regarded as evidence that fixation should be maintained for a while longer. If on the other hand movement is free, still further mobility may be permitted.

Passive movements are only indicated when there is reason to believe that after protracted immobilization fibrous adhesions and ligamentous shortening prevent further advance in movement. Then according to Mr. Jones "passive movement should be done once in each direction in which movement is limited. It should not be followed by a reactionary swelling and stiffness which lasts for more than twenty-four hours. If the joint is stiffer twenty-four hours after a single movement it means that it is still not ready for movement, or the movement used has been too violent. To and fro passive movements are very likely to stir up a reaction of an inflammatory nature which leads to more effusion and more adhesions." Massage when skilfully done and of the lightest possible nature is valuable at all stages; but unless the operator is absolutely sure of himself, it is best to forego it altogether and to rely wholly upon absolute rest. Continued pain or tenderness means that repair has not been allowed to become firmly consolidated before the stresses of muscular action or of gravity

have been allowed to act upon a fracture, thereby keeping up irritation.

NONUNION AND MALUNION.

Nearly all cases of nonunion are really cases of delayed union. Of course, there are exceptions to the rule but they are rare. There is no way of knowing the time it will take a fracture of any given bone to unite and consolidate. What you read in the textbooks is a generalization to which there are an infinite number of exceptions. Every individual differs from every other in this respect. One individual may require twice or three times the usual period and still present no discoverable abnormality.

Failure of osteogenetic repair is best treated by pounding the region of the fracture with a padded hammer and then tying a rubber band several inches above and below the fracture site tightly

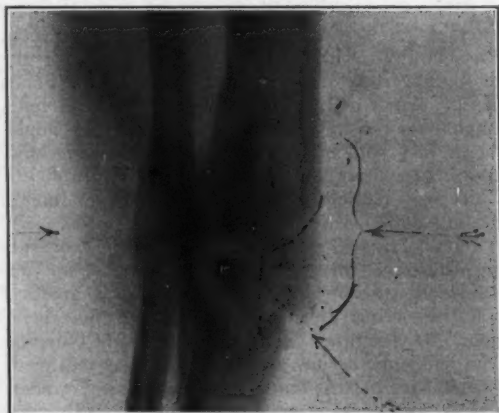


Fig 3—Fracture of tibia and fibula with bad alignment but good apposition.

enough to cause this part of the limb to swell to very much more than its normal girth, thus expanding all the capillaries and lymph spaces in the fibrous tissue and allowing a new process of repair to start. After this you should continue with your fixation for twice or three times the usual interval. To be sure in some cases tissue intervenes between the fragments and open operation is called for. But the majority of cases of nonunion are actually cases of delayed union. Where other methods have failed the transplantation of a healthy bone graft is indicated. However, this operation calls for an exquisite operative technic.

MALUNION.

It is wise to protect a fracture, especially a fracture of the lower limb, from undue stress even after it appears to be firmly united. The reason for this precaution is because of the frequent occurrence of a form of malunion resembling delayed union. The patients after the lapse of the usual interval required by such a fracture to heal use the part for a while with satisfaction, but later they begin to complain of pain and, especially at the site of fracture, of functional disability. Examples are the painful pronated foot which fre-

quently follows Pott's fracture and so-called rheumatic pains associated with old fractures of the femoral neck.

(To be concluded.)

LARGE CYSTS IN THE BLADDER.*

By HENRY MEYER, M. D., San Francisco.

I desire to report five cases of large cyst in the bladder which have come under my observation. This leads me to believe that they cannot be very uncommon, although such literature as I have read has nothing to say on the subject. The contents of these cysts I have never obtained, but believe it to be mucoid in character, and will say that the same is transparent.

The location of these cysts was close to the neck of the bladder in all cases but one, and that one was attached to the base, to the left of the left ureteral orifice and was distinctly pedunculated and the largest of five; the others were sessile. All were in men.

The diagnosis in all the cases was easily made by cystoscopy; and the diagnostic feature was the translucency of the tumors.

All the patients complained of frequent or difficult urination, or both, without pain. Three of the cases had residual urine.

The treatment in all the cases was the same, and as far as I know, original with myself, and consisted in burning one or more large openings through the cyst wall with the large flat cautery on the Nitze operating cystoscope at white heat, thereby allowing the contents of the cyst to escape and its walls to collapse.

No anesthetic was used except in the first case, where a four per cent. solution of cocaine was used in the urethra.

Case 1. Mr. G., 45 years old, I saw in October, 1908. Patient complained of difficult urination and had four ounces residual. The tumor was large, translucent and sessile, and attached to the posterior aspect of the bladder wall close to the neck, partially obstructing the urinary outlet. Urine was normal. The patient was cured at one sitting by burning a large hole through the cyst wall with a large flat electro-cautery. The contents of the cyst escaped, and the walls of the cyst collapsed immediately. The patient emptied his bladder completely and walked home. He has had no disturbance since, a period of seven years.

Case 2. C. L., a physician, 42 years of age, seen through the courtesy of Dr. E. G. McConnell in April, 1910. This patient complained of great difficulty in urination; in fact he stated that he had difficulty in urination as long as he could remember, and resorted to the occasional use of the catheter. He had sixteen ounces foul turbid residual urine containing considerable pus, which came slowly dribbling through the catheter, showing great lack of muscular power. Cystoscopy showed a large broad-based translucent tumor attached to the anterior aspect of the bladder close to the internal urethral orifice, hanging down and obstructing that orifice.

This cyst was apparently multilocular and required three cauterizations before it disappeared entirely, part of it disappearing with each cauterization. The residual urine diminished from sixteen to four ounces; in fact the muscular power of the bladder was so impaired that it never entirely regained its tone. Although permanent catheter-

ization was tried in this case, it availed nothing, and relief was only partial.

The cauterizations were done in my office without any form of anesthesia and with practically no pain. The prostate was not enlarged.

Case 3. Mr. H., 50 years of age, seen through the courtesy of Dr. A. Miles Taylor in April, 1910. Patient complained of frequent urination both day and night. Urine was normal; no residual.

Cystoscopy showed a large translucent tumor with broad base springing from the anterior aspect of the bladder close to the neck. In this case no obstruction was produced, but the tumor was a source of vesical irritability. One puncture with the large flat cautery on the Nitze operating cystoscope caused it to collapse and the patient's symptoms disappeared at once and he has had no recurrence.

The operation was done in my office without any anesthesia and the patient walked away and attended to his business without discomfort.

Case 4. Mr. B., 55 years of age, seen through the courtesy of Dr. L. H. Hoffman in March, 1912. He complained of frequent urination, having to pass urine from fifteen to twenty times during the day, but was not disturbed at night. He had two ounces normal residual urine and no enlargement of the prostate by palpation. Cystoscopy showed no enlargement of the prostate, but a large broad-based translucent tumor was seen attached to the anterior aspect of the bladder close to the neck.

This patient refused to be operated upon.

Case 5. Mr. C., 35 years of age, seen through the courtesy of Dr. McConnell in January, 1913. The patient stated that about one year before coming for treatment he had sudden retention of urine and had to be catheterized; that this was followed by the passage of some blood in the urine for several days. His only complaint when he came to Dr. McConnell was that the last part of his urine came away very slowly and he was conscious of some disturbance in the bladder which he could not describe. He had no residual and his urine was normal.

Dr. McConnell made a cystoscopic examination and diagnosed a large cyst of the bladder which was confirmed by my examination. The tumor was the largest of the five cases reported; it sprung from the base of the bladder about three-quarters of an inch to the left of the left ureteral orifice and as near as I could judge, it was at least two inches in diameter and possibly a little larger. It moved readily backward, forward and laterally on its pedicle and this mobility of the tumor made it more difficult to operate. He was treated in my office without anesthesia by perforating the cyst with a large flat cautery in several places and the last examination, made one week after the operation, showed the remains of the cyst shriveled to a small mass about half an inch in diameter. One year after the operation the patient reported perfectly well.

I desire to say that cauterization of these cysts with white heat produces no pain. The operation is done with the bladder distended with 150 to 200 cc. of clear sterile fluid.

My object in bringing this subject to your attention is to learn the experience of other observers so that we can get some idea of the frequency of these tumors and trusting we may learn from some of the members something regarding the pathology of the same.

Discussion.

Dr. A. B. Grosse: I have seen only one case of bladder cyst as described, namely the size of a large pigeon's egg on a pedicle. It was in the case of a young German who consulted me shortly after the earthquake for a difficulty in passing his

* Read before the San Francisco County Medical Society, November 30, 1915.

water. I advised operation (by suprapubic route). As he was returning to Germany shortly, he preferred to have this done at home and was operated on by one of Nitze's assistants.

A BRIEF REFERENCE TO THE BACTERIOLOGY OF NASAL SINUS DISEASES.*

By JOHN J. KYLE, M. D., Los Angeles.

With the advent of serum therapy, greater attention to the bacteriological side of nasal diseases becomes necessary. We may favor or reject the theory of the curative properties of vaccines or serums, but not until we have personally proved or disproved the theory, or have faith in those who have sufficiently experimented, are we justified in making positive conclusions.

It is possible that the era of vaccine therapy is here, and here to stay. In consequence, the microscope becomes a necessity in the diagnosis of all sinus affections.

The question of prognosis may be in a few cases settled by the microscopical findings. It will require long experience and large statistics to settle such a question. The question relative to indication for operation and time to operate is always a very serious one. One cannot approach any sinus operation with an absolute sense of indifference. There is always some danger of lighting up a new infection producing septicemia, meningitis, or a sinus phlebitis or thrombosis.

Nor can we centralize all the general or local conditions about the affected sinus. Sometimes we magnify the local condition, and forget that some general condition may be the predisposing factor.

Two conditions, and frequently masked, that predispose to sinus disease are syphilis and tuberculosis. A patient with temperature and a chronic sinus disease should be looked upon with suspicion, as being due to a pulmonary tuberculosis. Temperature may accompany the onset of an acute sinus affection, but seldom do we find it in chronic suppurations. When it exists, we should look for general conditions that might complicate or retard the recovery.

Adjunct to the microscope is the Roentgen ray. It is impossible to give a positive diagnosis of ethmoid or sphenoid disease in all cases unless we employ the X-ray. In the diagnosis of maxillary antrum disease it may be necessary to depend upon the X-ray unless we confine our observation to puncture and lavage, and in doubtful cases this is the only method that will tell us positively that the sinus does or does not contain pus. In a few cases transillumination and X-ray both fail. However, the condition of the teeth should be known in all cases of antrum disease, and the X-ray is the only method that promises success.

There is a presumption that all normal sinuses are free from bacteria; however, there is constantly present in the nose bacteria limited to one or more varieties. The staphylococcus, one or other variety, is probably the most often found.

* Read at the Forty-fifth Annual Meeting of the Medical Society of the State of California, Fresno, April, 1916.

True pathogenic bacteria are more numerous in acute or subacute suppuration, whereas the non-pathogenic or mildly pathogenic are found in chronic conditions. It is not infrequent that the chronic cases become active and the infection virulent by new infection or a local tissue reaction from atmospheric condition or chemical changes in the body, which stimulates new vigor in the organisms. It is possible that so-called epidemics of grippe or influenza are in a great majority of cases acute exacerbations of old sinus disease, for many cases have recurrent attacks of catarrhal disease of the upper air passages year after year. During the past winter I have treated an unusual number of sinus cases and comparatively few cases of suppurative ears. How are we to account for this discrepancy? Is an apparent epidemicity of sinus disease due to some peculiar thermal or humid condition of the atmosphere which especially lowers the vitality, or to infection from one individual to another? There are no one or two pathogenic organisms, as far as our experience goes, which are exclusively the cause of so-called epidemics of sinus disease, and for that reason we think climatic changes are primarily a predisposing factor.

I do not profess to be a bacteriologist and my observations are those that may come to one leading a busy life and with a limited knowledge of the microscope. My assistant, Dr. Irving, has devoted a great deal of his time to this part of the work. I may say no one leading a busy life can find time without assistance to do the necessary biological work now incumbent upon the rhinologist or otologist.

My dealings with laboratory men have been unsatisfactory. I send them specimens and they not infrequently report that the organisms "look like" so and so but he is uncertain. He might find out by inoculating a guinea pig, growing blood cultures, etc., ad infinitum. Very few bacteriologists are in a position to take a sample of pus from any of the sinuses and in consequence must come to one's office, and this, on account of delay, is most unsatisfactory. A small inexpensive incubator, with a limited number of microscopical accessories, is all that is imperative for clinical diagnosis. The preparation of vaccines may be left to the expert, as well as the experimentation on animals.

In making our culture from the nose, it may seem a question how to prevent extraneous infection. I am inclined to think that the culture from the pus in or about any of the sinuses will show the organisms associated with the infection. In our antrum cases, we have secured the pus through a cannula either by drainage or suction. We have frequently at the same time made cultures from the inside of the nose and could find no difference in the results. The nasal cavity is not teeming naturally with microorganisms and there is a tendency to be a sterile cavity. Many times we dry the nasal cavity and with a suction apparatus try to secure secretion

from the sinuses and from this we make the culture.

Culture tubes of blood and Agar can be had from the Cutter Laboratories and at a minimum expense. There are times when bacteria will not grow upon either of the above media, or at least until after many trials. The skilled laboratory man in some cases may be necessary.

Sometimes from one growth we have the laboratory prepare our vaccines, and at other times we rely upon autogenous vaccines. We desire first to know the character of the infection.

The laboratory man condemns the use of stock vaccines. There may be a selfish motive to his position. The fact remains that most men depend upon stock vaccines.

In regard to the bacteriology of chronic atrophic rhinitis with crusts and ozena, we are under special obligation to Dr. Horn of San Francisco for his illuminating reports upon the cause and curse of Ozena. My knowledge of the bacteriological side of the subject is limited, but certain general observations may be permissible.

Since the appearance of the results of Hoffer, I have hoped to find the organism of Perez. Dr. Horn has given me a number of slides that show the Perez bacillus yet I am unable to differentiate the Perez organism from some of the Friedlander varieties. However, in the preparation of the vaccines this should make no special difference, and the vaccines thus prepared ought to cure the disease, provided we isolate the Perez organism and proper technique is used in the preparation of the vaccines and the theory is correct that vaccine will cure the disease. My results are not entirely satisfactory with the autogenous and stock vaccines.

We are inclined to believe that the so-called cocobacillus of Perez is more often present in the nose than heretofore anticipated. Odor is one of the characteristic symptoms of ozena, yet there are many cases in which the odor is not perceptible. The more pronounced the atrophic degeneration, the more pronounced the odor. In consequence, the more chronic the disease, the more pronounced the odor. Atrophic rhinitis or ozena is we believe more especially due to early sinus suppuration and to the Perez bacillus in the beginning, or some other organism which in time may give way to the Perez organism.

In one case of ozena during the past year we found tertiary syphilis of the nose. When the case came under observation there was complete destruction of the bony and cartilaginous septum, necrosis of the nasal bones, with symptoms of beginning flattening of the bridge of the nose. Under iodide of potassium the necrosis stopped and the nose became firm to the touch. The iodide of potassium was supplemented by five doses of salvarsan, and Wassermann continues positive. The symptoms of ozena continued, and apparently were not influenced by the antisyphilitic treatment. In this case an autogenous vaccine was twice prepared, without any results. We then used ten injections of a special vaccine pre-

pared by Dr. Horn, but without results. We again began the autogenous, and no results. This was followed by a new stock vaccine sent me by Dr. Horn and the results are apparently good. After fourth treatment odor disappeared and three weeks have passed with little discharge and no return of odor. Sufficient time has not passed to give any definite information in regard to the vaccine.

Microscopical findings varied in eight other cases of atrophic rhinitis that we have followed closely during the past winter. A mixed infection predominated.

A trophy of the cells does not interdict operation. Whenever crusts form, cells of some size are sure to be in close proximity. The size of cells is variable, and at times as small as a millet seed.

The organism resembling the Perez cocobacillus was found in all cases. In some of the cases there was a mixed infection. In one case the bacteriological laboratory reported Friedlander's bacillus, diphtheroid and bacillus pyocaneus. Afterwards Dr. Horn reported that he had in this case isolated the pure Perez cocobacillus.

In one case, mixed with our Friedlander or Perez bacillus, was the bacillus coli.

Since Dr. Horn has prepared a paper upon Ozena, and my knowledge of the subject so incomplete, I want, in dismissing the subject, to say that it is my belief that in a great many cases of chronic ethmoiditis, the Friedlander or the Perez bacillus may be found associated with the disease; that ozena may have in the beginning been a purulent ethmoiditis and sphenoiditis and in no respect due to syphilis.

Odor is a symptom, and the characteristic symptom of the disease. Atrophy of the ethmoid cells is secondary to infection and is not always present. Those cases with or without odor, that have the cocobacillus of Perez present and give a positive agglutination test, are to be classed as Ozena.

Treatment of Ozena is satisfactory in proportion to the free exposure and drainage of diseased cells. Our observations are too limited to express an opinion in regard to the value of vaccines. In two cases, perceptible results were obtained from the stock vaccines sent to us by Dr. Horn.

In about fifty cases of acute infection of the maxillary sinus, during the past winter, and classed among the epidemic or grippe cases, we found in twenty in all the staphylococcus albus or citreous as the sole organism. In one case we found bacillus pyocaneus and the pneumococcus mixed. This case responded to irrigation, and a few weeks after recovery the patient returned with a staphylococcus albus infection on the opposite side.

In one case of unilateral infection we found the bacillus pyocaneus in pure culture. Autogenous vaccine apparently helped in this case.

In another case of unilateral infection we found the micrococcus tetragenous in pure culture. This case made a good recovery after six weeks, by

frequent irrigation of a 1% solution of chloride of zinc. An autogenous vaccine was also administered early in the disease but no apparent benefit resulted from the vaccines.

In only one case did we find the streptococcus. In one case the micrococcus catarrhalis alone. In this case a radical intranasal operation was performed. A few days after the operation no evidence of the micrococcus catarrhalis could be found, but many staphylococci were present.

This transmigration or change of infection demonstrates the necessity of frequent bacteriological examinations of secretions before and after operation, provided we care to supplement our treatment by vaccines.

The bacillus pyocaneus is not infrequently found in the nose and ear. It usually persists for a long period of time. The reaction may be as great as from any pathogenic organism.

Vaccines in infection from the bacillus pyocaneus act very satisfactorily. In one case of sinus infection we found the bacillus pyocaneus also in the urine. Copper solutions are indicated for irrigation.

In one case of acute exacerbation of maxillary sinus disease we found the bacillus prodigiosus mixed with the staphylococcus. The bacillus 203—MEDICAL

prodigiosus, you may recall, is classed as a saprophyte and inflames the mucous membrane by acting upon dead tissue within the sinus.

In a record of the microscopical findings in thirty-two unselected cases of suppuration of the ethmoid sinuses, and grown on Agar and sometimes blood serum, we found the following in both acute and chronic cases:

B. Coli or	Mixed with Diphtheroid
Friedlander, II	and Staphylococcus.
Staphylococcus XI	
Streptococcus Pyogenes II	Both died from purulent meningitis.
Pneumococcus I	
Bacillus Perez IV	Two cases responded perceptibly to stock vaccines prepared by Dr. Horn.
(Diagnosis doubtful)	
Pyocaneus VIII	
Micrococcus	One Hay Fever patient.
Catarrhalis II	
Bacillus Prodigiosus I	
Lactis Aerogenes I.	

From the above imperfect statistics we find that the two organisms most active were the staphylococcus and the bacillus pyocaneus. Infection of the ethmoids may be monobacterial or polibacterial. As a rule, infections of the sinuses are monobacterial and, when drainage is free, go to spontaneous recovery. The anatomical structure of the nose is such as to predispose to poor drainage and consequent chronicity of ethmoid sinus disease.

We have no records of sphenoid suppuration independent of ethmoid suppuration. In two cases we believe that the bacillus of Perez was found. In one case a Friedlander and Diphtheroid.

The usual organism alone or mixed was the staphylococcus albus.

In the discharge from the frontal sinuses, sometimes complicated with maxillary sinus disease and sometimes ethmoid as well, in the record of a few cases we find the following, not enough cases however to give us any definite information:

Friedlander Bacillus I	
Streptococcus Mucosus and	
Staphylococcus Albus II	
Bacillus Pyocaneus II	One case acute, one chronic.
Staphylococcus	
Pyogenes Albus II	

We had one case of meningitis following a staphylococcus albus infection of the right frontal. Postmortem showed a circumscribed abscess which ruptured into the ventricles, with a diffused purulent meningitis. There was no dehiscence of the inner plate and infection seemed to travel by anastomosis of the blood vessels. Altogether, during the past year we have thus had three deaths from sinus suppuration.

TWENTY-SEVEN TRANSFUSIONS AT ST. LUKE'S HOSPITAL.*

By FAYETTE WATT BIRTCH, M. D., San Francisco.

In the past five years transfusion has been performed 37 times in St. Luke's Hospital, San Francisco. This discussion, however, will be confined to 27 cases which have been performed personally. The results of these cases have agreed in a general way with published statistics. The reports of various hospitals throughout the country show many deaths occurring from hemorrhage, shock, and hemopoetic diseases in which no transfusions had been done. A wider appreciation of the value of transfusion in these conditions is necessary, yet in our eagerness to bring transfusion into its proper relation with other therapeutic measures (for the relief of these conditions) the pendulum must not be caused to swing too far. Transfusion is no panacea and should not be selected where the indications are not clear cut, and not only do certain definite dangers result from its misapplication but untoward consequences may follow its legitimate use.

In all of the cases in this series, the method employed has been direct transfusion. A radial artery has been connected to a superficial vein by means of the Brewer or Pope tube. The time during which the blood has been permitted to flow from donor to recipient has varied greatly. This has depended upon the size of the tube used, the donor's blood pressure, his heart rate, the physical condition of the recipient, and the symptoms which develop during the operation. The method described by Libman and Ottenberg for calculating the amount of blood transfusion has not been used as a routine matter. The hemoglobin of the patients has been frequently recorded during the process of transfusion and has been found to in-

* Read before the San Francisco County Medical Society, February 15, 1916.

crease from 10% to 40% while he is on the table. If no subsequent bleeding occurs, the hemoglobin is generally from 5% to 20% higher on the following day.

In none of this series has any of the surgical accidents occurred as emboli, local infections, hemolysis, or over-transfusion with its train of symptoms of cardiac dilatation, edema of the lungs, tender, tense abdomen, enlargement of the liver and spleen, and finally a rupture of the abdominal viscera. Nevertheless, some of the bloods of these cases seemed to be incompatible without showing signs of hemolysis. In three such cases, immediately after transfusion, the patient developed a severe chill and high temperature. The temperature, however, subsided in about 12 hours. Where time would permit, the examination of prospective donors has consisted in the taking of a history, physical examination, Wassermann reaction, hemolytic tests, and ordinary blood examinations, paying particular attention to leukocytosis, lymphocytosis, eosinophilia, parasites, etc. It was not found possible to make all of these examinations in nine of our emergency cases. Under these conditions, relatives of the patients were always used as donors and no harmful results were observed from the transfusions. In several of the less urgent cases where it was not possible to obtain donors from among relatives or friends, one was secured through an (see charts) employment agency.

A summary abstract of the transfusion cases will now be given.

The typhoid case which continued to bleed after the transfusion, died a few hours later. This transfusion was undertaken late. The patient was very restless and increased the difficulty of the operation. Consequently, the transfusion was poorly done, and only a small volume of blood was injected into his vein. With a better transfusion performed at an earlier date, the patient undoubtedly would have had a much better chance of living.

The case of placenta previa also might have been saved had the transfusion been started before the extraction of the child and the placenta. The patient lost a large amount of blood during the delivery. Transfusion was undertaken immediately but the patient lived only two or three minutes after transfusion had started.

The case of sepsis with a hemorrhage from the bowels was of interest. The blood transfused was from the patient's son and had been previously tested in the ordinary way; yet this case developed the most marked reaction in the form of a chill and fever of any of the series.

The cases transfused to minimize surgical risk were quite satisfactory. While four of the 12 died, the eight made good recoveries. Of those who died, one succumbed to an embolus; one with recurrence of the hemorrhage on the third day; one death was complicated with preexistent sepsis and lues, and the fourth died with signs of hypostatic pneumonia.

The cases transfused for diseases of the blood, although showing a slight benefit, were on the whole unsatisfactory.

12 CASES TRANSFUSED TO MINIMIZE OPERATIVE RISK
Summary: 8 Cases Benefited, 3 Not Benefited, 1 Doubtful

Diagnosis	Complications	Before Transfusion		After Transfusion		Operation 48 Hrs. After Transfusion	Pulse at End of Oper.	Shock	Final Result
		HB.	General Health	HB.	After 24 Hrs.				
Fibroid Uterus	Uterine hemorrhage	42	Poor	55	60	Hysterectomy	92	No	Cured
Fibroid Uterus	Uterine hemorrhage	27	Poor	65	77	Hysterectomy	100	No	Cured
Fibroid Uterus	Uterine hemorrhage	34	Poor	59	65	Hysterectomy	100	No	Cured
Carcinoma of Uterus	Uterine hemorrhage	45	Cachectic	68	65	Hysterectomy	92	Yes	Death.
Carcinoma of Uterus	Uterine hemorrhage	38	Debilitated	50	65	Hysterectomy	90	No	Lived 7 months.
Papilloma of Bladder	Blood in Urine	10	Debilitated	40	62	Superpubic Cystostomy	130	Yes	Died 7 mos. Carcinoma
Ulcer of Stomach	Gastric hemorrhage	21	Collapse	40	25	Gastro-enterostomy	130	Yes	Died 3 days later
Miscariage	Uterine hemorrhage	20	Collapse	30	25	Curettage	108	Yes	Cured
Post-partum Hemorrhage	Sepsis and lues	15	Poor	25	60	Curettage	100	No	Died 10 hrs. later
Periculous Anemia	Mental disturbance	30	Poor	45	75	Splenectomy	120	Yes	Died 24 hrs. later
Ectopic Pregnancy	Abdominal hemorrhage	10	Collapse	75	75	Salpingectomy	130	Yes	Cured
Abortion, Incomplete	Uterine hemorrhage	10	Collapse	48	55	Curettage	130	Yes	Cured

4 CASES TRANSFUSED FOR SURGICAL SHOCK

3 Benefited, 1 Not Benefited

Diagnosis	Operation	Condition	Before Transfusion	12 Hrs. After Transfusion	Result
			Pulse	Pulse	
Ectopic Pregnancy	Salpingectomy	Shock	148	102	Cured
Fibroid Uterus	Hysterectomy	Shock	No radial	...	Death
Ectopic Pregnancy	Salpingectomy	Shock	150	96	Cured
Incomplete Abortion	Curettage	Shock	180	84	Cured

4 CASES TRANSFUSED FOR DISEASES OF THE BLOOD

3 Benefited, 1 Not Benefited, 1 Not Decided

Diagnosis	Complications	Before Transfusion	After Transfusion	Result
		HB.	HB.	
Pernicious Anemia	Paralysis	25	40	Died 18 days later
Purpura Hemorrhagica	Epistaxis, 12 hrs.	70	70	Hemorrhage stopped
Secondary Anemia	None	32	40	Slight improvement
Aplastic Anemia	None	11	45	Too early to decide

7 CASES TRANSFUSED FOR ACUTE HEMORRHAGE WITH COLLAPSE

5 Benefited, 2 Not Benefited

Diagnosis	Condition	Before Transfusion	After Transfusion	Condition	Operation	Result
		HB.	HB.			
Intestinal Hemorrhage with Typhoid Fever	Collapse	38	40	Unimproved	None	Death
Uterine Hemorrhage with Abortion	Collapse	10	50	Revived	Curettage	Cured
Uterine Hemorrhage Placenta-precia	Collapse	—	—	Unimproved	Cesarean Section	Death
Sepsis with Hemorrhage from Bowels	Collapse	32	52	Improved	None	Cured
Hemorrhage from Laparotomy Wound	Collapse	38	55	Improved	Sutured	Cured
Uterine Hemorrhage with Abortion	Collapse	20	40	Improved	Curettage	Cured
Uterine Hemorrhage with Abortion	Collapse	50	50	Revived	Curettage	Cured

Those cases transfused for shock demonstrated the value of this procedure in this type of case.

Of the 27 cases transfused, eight were failures. At least one-half of this number could have been benefited had I decided that transfusion was necessary and performed it earlier. In the beginning of this work, too great dependence was placed on salt solution, caffeine, adrenalin, etc., to revive patients with hemorrhage and shock. It has been my observation that this waiting, procrastinating and temporizing method is the general plan adopted by the profession, for during the past few years, patients have been brought to the hospital mori-

bund from acute hemorrhage, others have developed acute hemorrhage while in the hospital, and a few have had post-operative shock. Many of these died, without transfusion being suggested. What is more to the point, the annual report of one of our largest and best American hospitals shows that 18 out of 158 surgical deaths were due to hemorrhage, shock, and hemorrhage with shock. In these cases it was not recorded that transfusion had been performed. It is hard to conceive why trained surgeons omit this important therapeutic agent and permit as high as 10% of their surgical cases to die, when it is an established fact that many of

this 10% could be saved by transfusion. There is no more excuse for a surgeon permitting his patient to die from shock or hemorrhage without giving him the advantages of transfusion than there is for a physician who fails to administer antitoxin in a case of diphtheria.

Transfusion should be looked upon not only as a method for reviving moribund cases with hemorrhage and shock, but also as the best prophylactic measure in preventing these conditions in individuals who are anemic, depleted, and weakened by disease. Many of these after transfusion are enabled to well withstand major surgery.

Just as soon as surgeons accept transfusion as a routine measure in the cases of these handicapped patients, just so soon will the now high operative mortality in these cases be lowered.

A CONSIDERATION OF SOME NEUROLOGICAL CONDITIONS IN CHILDREN.*

By HAROLD W. WRIGHT, M. D., San Francisco.

For purposes of convenience we may divide these conditions into those occurring most frequently in (a) infancy, (b) childhood, and (c) adolescence. In looking up the various disorders of a nervous character in children one is surprised to note how many there are and how many more occur as the period of early childhood is passed and the periods of pre-adolescence and adolescence are reached.

INFANCY.

Of those disorders occurring in infancy—i. e., under three years of age—the writer would speak first of recurrent convulsions and their relation to brain lesions of a vascular or inflammatory nature, and of their relation to ricketts, toxemia and other causes of unstableness in the cortical neurones.

The relation of hemorrhage to convulsions and other cerebral deficiencies in infants: Hemorrhage from the smaller meningeal vessels is fairly common during the process of a difficult birth, but there would seem to be considerable doubt as to the frequency of lasting brain defects from this source unless there is also a laceration of brain tissue or a severe asphyxia of the cortical cells. The skull of the fetus is remarkably plastic and will bear without consequent brain damage a tremendous amount of pressure as is shown by the numbers of children who are born by instruments without subsequently having convulsions or other evidence of brain injury; furthermore, hemorrhagic effusions are absorbed before the cranial sutures are united, therefore before much pressure can occur. Hemorrhage from the large venous sinuses may occur, however, and cause severe brain pressure, the symptoms of which may not appear *until several weeks later*. When birth is especially difficult the cause is either in the anatomy of the mother's pelvis and the physiology of her musculature or in the unyielding character of the child's cranium due to hydrocephalus or to premature ossification of the sutures. If the fault is with the cranium there is apt to be already a developmental defect which manifests itself sooner or later by convulsions,

idiocy, imbecility, spastic paralysis, ataxia or only a mild degree of mental deficiency.

It is in older infants, those beyond the eighteenth month, that convulsions are apt to be the symptom of vascular lesions, either because of an hemorrhagic tendency aggravated during some toxic illness or because of encephalitis; the subsequent cerebral impairment is then the result of vascular lesions, hemorrhagic, thrombotic, or embolic in nature, and the convulsions are symptoms of these lesions. It is very doubtful if convulsions are ever the cause of cerebral hemorrhage. Encephalitis is probably the most frequent cause of both. Frequently before any convulsion has occurred there will be other signs of cerebral hemorrhage or thrombosis; the writer recalls such a case in which during the course of several weeks there was a slowly progressive hemiplegia, first the leg and later the arm and face becoming paretic and convulsions being the last symptom to appear. (This patient gave a history of an hemorrhagic eruption under the skin previously and of being an easy bleeder.)

What is the prognosis as regards the recurrence of convulsions? In those in whom convulsions occur soon after birth we are justified in expecting their recurrence from trivial causes, because of the probable damage already done or the defect already existing in the cortical neurones. In those cases of convulsions which occur in the later months of infancy after we have already had evidence of a normal cerebrum the chance of their recurrence will depend upon the extent of the vascular lesions as shown by the neurological findings; where the findings point to a sub-cortical lesion the symptoms of which do not progress, the chance of recurrence is very slight and will depend largely upon the prevention of causes of toxemia, scorbutus or nervous exhaustion.

Another cause of convulsions in infants is brain abscess, and this condition should always be under suspicion. Brain tumor may also be a cause, but in infants a tumor of the brain is usually a tuberculoma and the forerunner of tuberculous meningitis.

THE RELATION OF RICKETTS TO NEUROLOGICAL SYMPTOMS.

In ricketts we have a defective organization of all connective tissue. Whether or not nervous symptoms will occur in ricketts would seem to depend upon whether the white matter—i. e., the myelin—of the nervous system is defective. We have an analogous condition in various brain lesions where these fibers are interfered with as shown by increased reflexes, spontaneous tremors, or ataxic tremors, and we know that the increased activity of the reflex arc subsides when the Babinsky reflex, normally present in infants for the first few months, disappears—i. e., when myelinization is completed.

Spasmodic croup, convulsions, nodding spasms, pseudo-spastic contractures of the limbs or general irritability may be the only signs of the presence of ricketts. In connection with this disease one is also reminded of the pseudo-paralysis of rachitic children. For example, a child is brought to the clinic because, although two years of age, it does

* Read at meeting of Fresno County Medical Society, Sept. 7, 1915, and at the meeting of the San Francisco County Medical Society, Nov. 2, 1915.

not sit up alone and does not walk, there may be also noticed a great deal of stiffness in the hamstrings and the flexors of the thighs; the mother is particularly concerned about the child's spine which she has been told is diseased; the examination reveals only a mild degree of rickets and a good prognosis can be given in spite of the presence of muscular atrophy sometimes seen in rickets.

CEREBRAL PARALYSIS.

The term "cerebral palsy" is in the minds of most physicians synonymous with that form of spastic paralysis known as "Little's disease," but there are many other forms differing from each other according to the location of the developmental defect or the lesion responsible for the paralysis. Many of these cases are the result of encephalitis in utero or soon after birth. Cerebral paralysis does not necessarily imply either spasticity or imbecility; there may be instead of spasticity a hypotonia with ataxia because of the cerebellum and the tracts ascending from it to the brain being involved. If the cortex of the frontal area is not involved, the intelligence may be normal or nearly so and increased emotional irritability may be the only psychic symptom.

In any case of cerebral paralysis it is important to accurately estimate the location of the anatomical defect and the mental status of the child, every case being given the benefit of doubt and carefully trained by special forms of education before declaring the child an imbecile. Because a child drools at the mouth, or has a defect of speech, or a spastic paraplegia, he is not necessarily uneducatable; on the contrary he may be exceptionally bright in many other directions. Many such children have grown up apparently imbecile because of neglect, just as many congenitally blind and deaf children. It must be remembered that Madame Montessori had such success with defectives that she was encouraged to pursue her methods with all sorts of children. It would seem that too little interest is taken in these cases by the medical profession; much time is spent in the examination and diagnosis of hopelessly advanced cases of organic nervous disease in adults while the deficient child is passed by with pessimistic shrug and not even an accurate diagnosis. When treating the paralysis of the extremities in cases of cerebral palsy it is very encouraging to observe the good results obtained by carefully supervised muscle training, especially in a child of fair intelligence. Unless the training is carefully supervised, the parent or teacher may waste time with antagonistic muscles which are already overactive. In this connection the importance of tendon lengthening or other orthopedic procedures upon permanently shortened muscles should not be overlooked, for such operations bring about rapid improvement in muscles which before had been useless.

The diagnosis of the cerebellar form of cerebral paralysis is made by the presence of hypotonia of the muscles and joints, especially those of the fingers and the spine, by inability to perform finely co-ordinated movements and by difficulty in maintaining balance in the sitting or standing position;

there may be a combined spasticity in the legs, which will confuse the picture.

Myatonia congenita (Oppenheim's disease) may be confused with the cerebellar form of paralysis and also with poliomyelitis. In all three diseases there is hypotonia and the child may be unable to walk; the differential diagnosis depends on the fact that in myatonia there is a general involvement of all the muscles of the extremities in weakness but not absolute paralysis, there is no true ataxia, and no marked atrophy of isolated muscle groups.

Mongolianism: This is a form of mental deficiency seen in infants which is sometimes confused with cretinism. The degree of mental impairment varies in mongolianism and is never as pronounced as in the cretin unless the latter is under treatment with thyroid extract, when rapid mental improvement occurs; in both diseases there is enlargement of the tongue, backwardness in learning to talk or walk, with dry skin and feeble circulation; but in the cretin there is a very pronounced sluggishness of temperament, whereas the mongolian is irritable and mischievous or at least responsive; the facial expression of the cretin is characterized by thickness of the lips and of the tissues under the eyes but no marked cranial deformity, whereas in the mongolian the cranium is small and flattened posteriorly, the eyes may be slanting, but the expression is much brighter than that of the cretin. Hypotonicity of muscles is a marked feature in mongolians. They are also capable of great mental improvement under special training.

THE PERIOD OF CHILDHOOD.

Headaches: This is a common complaint in children of five to twelve years. Headache may be the result of eye-strain, sinusitis, intestinal toxemia, cervical osteitis and arthritis, brain tumor or mental stimulation too great for a child essentially neurotic. The writer has in mind a child of six years who for a period of twelve months was treated for "eye-strain" before it was discovered that she had a brain tumor; it was then too late to prevent total blindness. More often headache is a symptom of intestinal indigestion with toxemia which may be present in spite of daily bowel evacuations; in such cases general nervousness and failure to get on at school may unjustly arouse suspicion of mental defect. Mental defect may also be wrongly ascribed to children suffering from eye-strain which no doubt is a potent cause of neurotic symptoms and of retardation in school children. In the essentially neurotic child headache should be the signal for withdrawing the child from all competitive school work and for keeping the child out of doors in a quiet environment. A little more care in the estimation of a child's natural capacity and more individual management to suit that capacity would prevent many of the nervous breakdowns which occur at adolescence or later; inspection of a school-child's mentality should not be confined to the application of Binet-Simon tests, so often made by the dilligente in psychology and without the co-operation of a physician trained in mental diagnosis. In no other phase of child study is experience in mental disorders and the keen inspection which is

possible only after extensive study of such disorders so important and yet it is often relegated to laymen or neglected altogether.

Chorea: The chief reason for considering this familiar disease in a paper of this sort is that it may be confused with hysteria and that a transient paresis of a limb with the temporary loss of the tendon reflex may be the first and only symptom for several days.

Chorea and hysteria may exist in the same patient but wherever the movements are dramatic or confined to one limb and when there are evidences of emotional variability hysteria is to be suspected.

Habit spasms have to be differentiated from chorea. They are apt to occur at the same age, but they are more localized in certain muscles having to do with response to peripheral irritation and are often the result of what in the beginning was a conscious muscular contraction in children whose eyesight is strained or who have obstruction in the nasal passages. Later on the habit becomes unconscious and persists even after the removal of the exciting cause. Very often too these cases are essentially neurotic, and the habit spasm is only one of many nervous symptoms. A tic in older children, those beyond the age of puberty, is much more apt to be of psychic origin and a symptom of hysteria.

Hysteria is not an uncommon disorder in children, especially the hystero-epileptic form, but will be considered later under the disorders of adolescence for it is much more frequent in that period.

JUVENILE PARESIS AND TABES.

Before leaving the childhood period it is in order to mention that juvenile tabes and paresis may occur in very young children. The writer has seen a case of true general paralysis of the insane in a child of eight years and cases have been reported in even younger children. The correct diagnosis is often delayed because the neurological examination is incomplete. A child who presents any nervous symptom of an organic nature or one who is subject to frequent headache should have the pupillary reaction tested in a dark room, a Wassermann test of the blood and spinal fluid and a cell count of the fluid. The patient of eight years just mentioned had no pronounced mental defects for two years; there was a great deal of unrest and distractibility and a tendency to prevarication but no noticeable defect of memory or change of personality; the diagnosis was first made entirely on the signs of organic neurological disease and the findings in the spinal fluid.

THE PERIOD OF ADOLESCENCE.

Spinal cord tumor: This is not an infrequent disorder at this period and may for a time be confused with the form of paraplegia in tubercular caries of the spine and perhaps more frequently with osteo-arthritis of the spine; for in some cases of spinal cord tumor, notably the intra-medullary tumors, kyphosis and scoliosis may occur. In spinal cord tumors the first focal signs are nearly always sensory signs; in Pott's disease they are chiefly motor. There is rarely any muscular spasm in cord tumor although local tenderness may be found. Furthermore a tumor of the cord is

very often intra-medullary and therefore symptoms relative to the perception of heat and cold in the portion of the body corresponding to a particular spinal segment are early diagnostic features. Pain is not necessarily a symptom of spinal cord tumor unless the tumor first involves the posterior nerve roots. The only symptoms for many months may be a small area of anesthesia and paresthesia and a slight defect of gait, a tendency to stumble easily; later on if the tumor involves the medulla of the cord a slight scoliosis may appear, or a combination of scoliosis and kyphosis; but in this case the kyphosis is not sharp and angular but like that of a rachitic spine.

Osteo-arthritis of the spinal column offers more difficulty in differential diagnosis. The writer had under observation a girl of sixteen years who for several months was thought to have an osteo-arthritis of the cervico-dorsal spine and was treated for such by very able orthopedic surgeons. Later there appeared definite signs of involvement of the eighth cervical and first dorsal segments of the cord relative to the perception of touch, pain and temperature followed by gradually increased spasticity of the legs; laminectomy was performed and an intra-medullary tumor was found, but permanent damage to the cord had already been done. (See report of this case by Pearce Bailey in article on "Painless spinal cord tumors," *Journal of A. M. A.*, July 4, 1914.) On the other hand osteo-arthritis is not an infrequent disease of youth and how often in our general examinations we neglect the spine! Arthritis of the spine occurs in all degrees of intensity and varies as much in location. It may be quite extensive without pronounced deformity. Only a careful test of the spine's mobility will reveal the disease, for the X-ray is often negative. The symptoms of vertebral osteo-arthritis may be those of ordinary neuritis, sciatica, tumor of the cauda-equina, spinal cord tumor or progressive muscular atrophy. Its relation to focal infection is now well known.

Multiple Sclerosis: This disease may also be confused with spinal cord tumor, with brain tumor, with hysteria and juvenile paresis. In multiple sclerosis there may be for a time only a stumbling gait, a tendency to easy laughter and a peculiar hesitation in speech or an abrupt staccato speech. The diagnosis may be concluded by an examination of the optic discs which will show temporal pallor and central scotomata in the visual field; another early and confirmatory sign is an absence of the abdominal reflexes. When the cardinal symptoms of intention tremor, scanning speech and nystagmus are present there is, of course, no difficulty, but many cases do not show this classical syndrome. From brain tumor multiple sclerosis may be distinguished by the absence of headache, vomiting or choked disc, but in other respects the two disorders may be very similar in the early stages, especially if the tumor is in the frontal lobe for both conditions may cause absent abdominal reflexes, increased patellar reflexes and a facetious mental reaction.

HYSTERIA.

The difficulty of distinguishing hysteria from

epilepsy in some instances has already been referred to. In connection with hysteria one is reminded of the hysterical forms of joint contracture which may occur after an injury slight in itself but accompanied by fright or associated in some way with an unpleasant or impressive incident, either recent or remote.

One should beware of putting hysterical joints in plaster casts: such treatment will delay recovery from the hysterical contracture and may be the cause of other and worse symptoms by suggestion. In making a diagnosis between hysteria and other forms of nervous disease a careful history and estimate of the patient's personality is just as essential as an accurate observation of the attack or other objective condition. Some of the manifestations of this disease may be exceedingly baffling. The writer recalls a patient who besides contracture of the knee joint developed retention of urine, anesthesia corresponding at times to segments of the cord, although this shifted from day to day, a tremor at times resembling very much the intention tremor of multiple sclerosis, a staggering gait and exaggerated reflexes. Another patient, a girl of fifteen years, almost succumbed because of hysterical anorexia and vomiting; she became a living skeleton, was thought to have either tuberculosis or a malignant growth and came near having a laparotomy; then a correct diagnosis was made by a neurologist, but no improvement having occurred after many weeks her family sought an osteopath who was fortunate enough to have a convincing personality. After three seances of "spinal manipulation" the girl began to eat and to enjoy her food and from that time her recovery was rapid. In this case the cause as well as the cure of the disorder was mental suggestion. She had been getting rather stout and her schoolmates ridiculed her so much that she gradually decreased the amount of food taken, later refused it altogether or if persuaded to take nourishment would vomit it almost immediately.

NERVOUS AND EXCEPTIONAL CHILDREN.

Out of the stress of modern life, especially in large cities, the "nervous" child is becoming a more difficult problem. It is not easy to determine how much of this is due to hereditary influences and how much to environment. Parents, teachers and physicians are too prone to blame hereditary factors and let it go at that, forgetting that children are exceedingly suggestible and imitative and that the mental environment of home and school plays a large part in the formation of future neuro-psychic characteristics. Children are not studied enough as individuals; if they do not conform readily to an average type their peculiarities are repressed, punished or over indulged rather than studied and directed. Repression and no expression results in nervous tension which reacts unfavorably upon the whole organism. The child is then labeled backward, deficient or incorrigible, but no attempt is made to adapt his education to his needs. We need to give more attention to the psychology of the adolescent for this period is the turning point for most children toward either success or failure, and they have at this time espe-

cially spiritual conflicts which react upon them physically and mentally.

In closing a few remarks upon the *psychoses of children* is in order. It is well to remember that every case of mental disease in an adolescent is not dementia precox,—or feeble-mindedness. Dementia precox is a clear-cut entity and probably a toxic-organic disease coming out of a clear sky; the child for some reason becomes stranded in development at the critical period of puberty or a little later. To what extent this is due to defects in the glands of internal secretion has yet to be determined. But there are other forms of insanity at adolescence almost as common as dementia precox, namely, acute mania and melancholia or a combination of the two in manic-depressive insanity, and the prognosis in these forms is favorable as to recovery from the attack. The prognosis in dementia precox is not necessarily bad in all cases; many become arrested and have remissions in the course of the disease or marked improvement may supervene and the patient may be able to return to normal life. Perhaps if these psychoses were recognized earlier and brought under institutional treatment earlier the percentages of recovery would be greater than statistics now show. This can be brought about only by better provision in our public schools and clinics for the expert detection of mental disease.

SOCIAL INSURANCE INQUIRY.

Under the auspices of the Committee on Insurance of the New York Chamber of Commerce, arrangements are being perfected for a comprehensive investigation into all essential phases of the subject of social insurance, between this and the next meeting of the New York legislature, with special regard to health insurance. Dr. J. F. Crowell, Executive Officer of the Chamber of Commerce, to whom communications may be addressed, will have charge of the inquiry.

It is the purpose of this committee to go extensively into the subject so as to have at hand the desired data and to avail itself of the gist of experience in this and other countries. This inquiry will extend not only to the actual developments in countries where health insurance has made some progress, but is intended also to include a critical examination of the conditions, causes and effects of the different systems with a view to their availability for American communities. It is intended to test the claims which existing systems made at the time of their origin in the light of results.

POVERTY AND TUBERCULOSIS.

Poverty and tuberculosis—tuberculosis and poverty! These are the essential facts which force themselves to the attention of every investigator who faces the problem of that disease. The tenement house district of Cincinnati yields a tuberculosis morbidity just three times as great as the areas where better housing prevails. In 197 families in which tuberculosis existed the average monthly income for a family of four was approximately \$57. After paying the pro-rata share for food and rent, a balance of \$5.13 remained for each individual to meet all other expenses. Such a low subsistence level works like black magic in the spread of tuberculosis. Moreover, and this is a point over which the public should ponder, the home of the average wage earner was found to be far less sanitary than the average factory and

workshop. In regard to all the factors which make for healthful living, ventilation, sufficient light, proper temperature, and freedom from overcrowding, the score was in favor of the factory in nearly every instance.

The city of Cincinnati realized that her tuberculosis death rate was 50 per cent. above the average and that it had failed to manifest a tendency to decline. She felt no qualms in making this admission. Rather, she determined that she would learn why, with an efficient health department and favorable climatic influences, she was suffering from twice the mortality from that disease as her neighbor, Pittsburgh. Accordingly the United States Public Health Service was requested to make a thorough study of the situation and submit a report. To show that something more than mere academic interest obtained, 19,932 workers in 154 factories of the city voluntarily submitted to a physical examination.

The conclusions reached, point directly to the close connection between poverty and tuberculosis. The great factor underlying the entire problem was seemingly that of economic conditions. One-sixth of all tuberculosis cases came from cheap lodging houses. Alcoholism was a prominent cause, and often accelerated the course of the disease. Occupational hazards and bad working conditions were apparently responsible for about 20 per cent. of the cases, but in the majority of instances these hazards were not necessarily inherent in the occupation. Previous tuberculosis in the family occurred in practically a third of all the cases investigated. Dissipation, overcrowding, bad housing, and innate lack of personal responsibility, were also listed as causes.

An interesting feature of the report, and one which has not previously been dwelt upon in studies of this character, relates to the effect of immigration and the rate of growth of the population of a city upon the tuberculosis death rate. It is shown that cities with a population composed largely of racial stock having a limited resistance to tuberculosis are subject to a high mortality rate from that disease, while centers having a slow rate of population increase are likewise subject to a high tuberculosis rate. The evidence is submitted in a comparative table covering sixteen American cities. Almost without exception those with a high percentage of Irish, Scandinavian and German stock, and those in which the negro population is relatively large, have a correspondingly high mortality, while those where the Italian and Jewish element is proportionately great have a low tuberculosis death rate. Similarly, such cities as Detroit and Cleveland, with high rates of population increase, show a low tuberculosis mortality, while Cincinnati and Baltimore with a relatively small population increase have a high tuberculosis rate. Doubtless the true explanation of this discrepancy is that advanced by the authors, namely, that where the population increase is rapid new buildings are erected to take the place of old insanitary structures and better housing conditions prevail.

A. M. A.,

DETROIT,

JUNE 12-16, 1916.

PLEASE !
LOOK FOR THE
NEW ADVERTISEMENTS
IN
THIS ISSUE !
THEY
WILL INTEREST
YOU

OWNERSHIP OF THE ROENTGEN RAY PLATES.

(From the Law Department, A. M. A.)

No cases can be found touching on this subject. A few cases have been found in regard to the ownership of photographic plates but even these are indefinite and uncertain in their meaning.

As regards photographic plates the court has recognized the fact that authorship and originality of intellectual creation have the right to protection. This gives a photographer the right to have ideas as exemplified by photography protected by law. But this position of the court does not import that a photographer has any title in the plates per se. His title is in the concept, with some exceptions. Whatever title a photographer may have in a photographic plate depends on the contractual relation between himself and the subject of the picture. When a person sits for a photograph he does not usually vest the photographer with the right to use the plate as he may see fit. The same may also be said of a person who permits a roentgenogram to be made of his body. The idea and method of posing belongs to the operator and the title of the plate in the absence of a special contract at least in so far as the absolute disposition is concerned belongs to the patient. The courts have held that a person may enjoin the use of their photographic likeness by a photographer when such use may cause them injury. Similarly a court might enjoin the use of a Roentgen Ray Plate by a physician who made it when the agreement with the patient was that the plate was to be used for diagnostic purposes only. But if there is a special contract in which the patient permitted the Roentgenogram to be made for such diagnostic and other purposes as the physician may see fit then there is for all practical purposes a vesting of title or at least user in the physician. The argument that the patient is not paying for the plate but only for the benefit he may derive from that method of diagnosis would only go the length of supporting a right to possession in the person making the plate and would not give that person the right to use the plate as he might see fit. The patient gives up his body for diagnostic purposes and that only. It

may be true that he cannot demand and obtain possession of the plate, but neither can the operator have an unlimited user. In reality, therefore, there is a joint ownership: the operator having perhaps the right to possession with a limited user as per contract, while the patient has a supervisory interest in the plate.

See the following cases:

- Am. Mutoscope Biograph Co. v. Edison Mfg. Co.*, 137 F. 262.
Itzovitch v. Whitaker, 39 So., 499; 115 La., 479; 1 L. R. A., 1147.
Schulman v. Idem, 39 So., 707; 115 La., 628.
In re Whitaker Idem.
Burrow-Giles Lith. Co. v. Sarony, 111 U. S., 53.
Thornton v. Schrieber, 124 U. S., 612.
Nottager v. Jackson, 11 Q. B. Div., 627.

A TUBERCULOSIS STORY.

By E. M. BROWN, M. D.

A rancher living near Selma, Calif., following exposure, developed a severe bronchitis and in November of last year he lost his voice.

Thereupon, he rented his little farm, and with the money from this income he journeyed south in search of health. Note that no one, when he is able to get away, ever seeks health at home; it must be ever, like the will-o'-the-wisp, just a little farther on.

So the rancher arrived in Los Angeles.

It is difficult for any one, when tuberculosis cannot be called by some other name, to obtain lodging in our city; not because their money is covered with "disease germs," for here, as elsewhere, we take money from any one without question. It has a value too alluring to be refused, even by the most fastidious. The difficulty lies in the fear of losing still more money by the loss of other roomers who may leave because a "lunger" is in their midst.

Never mind the fact that most of the other lodgers are health seekers also, theirs may not be so apparent, and asthma, bronchitis, stomach-cough, water brash and catarrh have not the villainous sound that tuberculosis has to most of us.

Our rancher's first stopping place was the Hotel R., where he lived for two weeks; then the air of this small hotel room not producing the desired beneficial effects hoped for, he took lodgings at F street, where he lived three months, but health still beckoned, so he decided the ——— Hotel on Pasadena avenue had a more salubrious atmosphere and remained there three weeks before he became convinced that his throat was no better and moved out to Glendale and tried the sanitarium there for two weeks.

Here, for the first time in his wanderings, was he properly instructed in matters of personal hygiene, told how he could avoid infecting others, and made to feel that he really was not pariah, but a man more unfortunate, as far as his condition was concerned, than most others, while being far less dangerous because properly instructed.

The expense of sanitarium life was prohibitive, so he returned to his former rooming place at F street, remained there eighteen days, and then on medical advice went to the County Hospital. He was able to remain there but eight days because of the villainous food offered him, and the progressive loss in weight hustled him out. He took a room at Highland Park, but the landlady fired him after two days because she was afraid of his condition. So, once more he moved into town, to the ——— Hotel, where after one week he gave up his search for health and returned to his ranch in Selma.

Who followed him in those eight different beds occupied while in our beautiful city?

Sputum examination showed an average of five tubercle bacilli per field. How many people did he infect before he was properly instructed?

Who is to blame?

The rancher, because he came south in search of health?

The landladies who received him?
 The doctor who told him he had bronchitis?
 The health officer, for not meeting him at the train?
 The commonwealth of California for neglect?
 All of us for our indifference?
 You answer, when you are sure you are right.

DEPARTMENT OF PHARMACY AND CHEMISTRY.

Edited by FRED I. LACKENBACH.

(Devoted to the advancement of Pharmacy and its allied branches; to the work of the Council on Pharmacy and Chemistry of the American Medical Association, and to matters of interest bearing upon the therapeutic agents offered to the medical profession. The editor will gladly supply available information on matters coming within the scope of this Department.)

NEW AND NONOFFICIAL REMEDIES.

Since publication of New and Nonofficial Remedies, 1916, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies":

Styracol Tablets, 5 Grains.—Each tablet contains 5 grains styracol. Merck and Co., New York.

Tannalbin Tablets, 5 Grains.—Each tablet contains 5 grains tannalbin. Merck and Co., New York.

Stanolind Liquid Paraffin.—A non-proprietary brand of liquid petrolatum, complying with the standards of the U. S. P., 8th ed. and made from American petroleum. Standard Oil Company of Indiana, Chicago (Jour. A. M. A., April 1, 1916, p. 1027).

Items of Interest.

Emetin Hydrochlorid Variable.—It should not be taken for granted that because a drug bears the name of a definite compound it is true to name and pure, and therefore trustworthy in its action. This fact has recently been demonstrated in regard to emetin hydrochlorid. Two cases in which the administration of emetin hydrochlorid produced symptoms of poisoning (one terminating fatally) at the Johns Hopkins Medical Clinic led to an investigation by R. L. Levy and L. G. Rowntree in which the emetin hydrochlorid preparations of five pharmaceutical houses were used. This investigation led to the conclusion that the products supplied as emetin hydrochlorid are variable in composition and in toxicity to a degree which constitutes a serious danger. It behooves physicians to insist on some declaration from the firm supplying emetin hydrochlorid as to its purity and as to the standard employed. Levy and Rowntree emphasize also the fact that emetin hydrochlorid medication itself is not an innocuous procedure. To avoid the toxic effects of emetin, the dosage should be carefully adjusted for each individual, and the treatment should be given in courses at intervals of several days or a week. The subcutaneous method of administration is to be preferred (The Archives of Internal Medicine, March 15, 1916, p. 420).

Emetic Action of Strophanthus Not Due to Oil.—Hatcher and Eggleston have shown that the digitalis bodies produce nausea and vomiting through action on the medulla and that the direct action on the mucous membrane of the stomach is unimportant. They demonstrated that the fixed oil (fat) of digitalis produced no action and conclude therefore that attempts to avoid the emetic action of digitalis by removal of oil from digitalis preparations is of no avail. Similarly Hatcher has recently determined that the oil contained in strophanthus is not the cause of the nausea sometimes produced by this drug. While removal of the oil renders tincture of strophanthus more "elegant" pharmaceutically, such removal is of no

therapeutic importance (Jour. A. M. A., April 15, 1916, p. 1199).

Piperazin, Lysidin, Lithium Carbonate, Sodium Bicarbonate and Sodium Citrate as Uric Acid Solvents.—H. D. Haskins has studied the uric acid solvent power of urine of persons taking the various substances classed as uric acid solvents. The investigation led to the following conclusions: 1.—Piperazin can cause the urine to dissolve more uric acid than it would without the drug, and this effect is most marked if sodium citrate or bicarbonate be also given and if diuresis be avoided. 2.—Lysidin can act as a uric acid solvent but is not a practical therapeutic agent because of the large doses required. 3.—Lithium carbonate is a uric acid solvent if large enough doses are used, but is unsafe and possesses no advantage over sodium citrate or bicarbonate. 4.—Sodium citrate and bicarbonate are reliable and satisfactory uric acid dissolving agents when given in such dosage as to keep the urine alkaline (The Archives of Internal Medicine, March 15, 1916, p. 405).

Prescribing of Narcotics.—The Harrison Antinarcotic law exempts from its operations ready-made mixtures containing specified small quantities of narcotics, but requires physicians' prescriptions containing small amounts of narcotics to be registered. The law should be made consistent by requiring the registration of all prescriptions containing narcotics in any amount. The inconsistency in the law should be removed prohibiting absolutely the sale, except on a physician's prescription, of preparations containing narcotics in any proportion. The continued uses of small doses of a narcotic drug is just as capable of establishing the habit as is the use of larger doses (Jour. A. M. A., April 8, 1916, p. 1158).

Why Glycerophosphates?—The glycerophosphates are split up in the intestines into ordinary phosphates and absorbed and utilized, if they are utilized at all. There is no evidence that glycerophosphates have any pharmacologic action to warrant the belief that they are of use as therapeutic agents. The belief in their value is kept alive by the promotion of certain proprietary mixtures. The glycerophosphates will be continued to be manufactured until physicians refuse to prescribe them. A manufacturer has even substituted glycerophosphates for the potent yellow phosphorus in his elixir of phosphorus, nux vomica and damiana and, so his chemist reports, physicians continue to prescribe the proprietary the composition of which has been altered (Jour. A. M. A., April 15, 1916, p. 1205).

A Much Needed Pharmacologic Investigation.—J. D. Pilcher, University of Nebraska College of Medicine, has investigated the action on the uterus of the guinea pig of a number of drugs which are widely used as ingredients of proprietary "female remedies," and which so far have been little, or not at all, studied. Blue cohosh (*Caulophyllum thalictroides*) showed a variable tonic effect. Pulsatilla (*Anemone pulsatilla* or *Pulsatilla pratensis*), unicorn root (*Aletris farinosa*), figwort (*Scrophularia marylandica*), valerian (*Valeriana officinalis*) and skullcap (*Scutellaria lateriflora*) were more or less depressant. The following drugs gave negative results: cramp bark (*Viburnum opulus*), black haw (*Viburnum prunifolium*), swamp maple (*Acer spicatum*), false unicorn (*Chamaelirium luteum* or *Helonias dioica*), liferoot (*Senecio aureus*), wild yam (*Dioscorea villosa*), motherwort (*Leonurus cardiaca*), passion flower (*Passiflora incarnata*) and squaw vine (*Mitchella repens*). It is to be hoped that Pilcher's work will permit the formation of an opinion as to the therapeutic value of those drugs in which some degree of activity has been found (Jour. A. M. A., April 15, 1916, p. 1205).

Diarsenol.—Dr. E. H. Martin, Hot Springs, Ark., reports that, after giving several hundred doses of Diarsenol without any bad effects whatever, he had two cases in which nausea, vomiting and symp-

toms of apparent collapse such as have been previously reported by another writer. He found on investigation that the specimens which in his hands gave untoward results as well as those previously reported on and two further accidents were all due to a product bearing the same lot number (Jour. A. M. A., April 8, 1916, p. 1155).

Elixir Calcyates Compound.—Each dessertspoonful of this specialty is said to contain the "equivalent of" Calcyates (calcium and strontium disalicylate) 5 grains, resin of guaiac $\frac{1}{2}$ grain, powdered digitalis leaves $\frac{1}{4}$ grain, powdered squill $\frac{1}{4}$ grain, extract of colchicum seed $\frac{1}{4}$ grain, cascara 1-16 grain, aromatics. One or two dessertspoonfuls are to be taken three to four times a day. The mixture is to be given in cases of "rheumatism, lumbago, neuralgia, sciatica, etc." If a salicylate is indicated it should be given in sufficient amount in the form of sodium salicylate; the patient should not be given a preparation containing ingredients in the way of guaiac, squill and colchicum which are not needed. Digitalis is rarely indicated in inflammatory rheumatism and it should never be given in a multiple mixture (Jour. A. M. A., April 22, 1916, p. 1307).

Cactus Compound Pills.—A pharmaceutical firm makes Pills Cactus Compound (Heart Tonic) each of which is said to contain: "Cactus grandiflora $\frac{1}{2}$ gr., Sparteine sulphate 1-40 gr., Digitalin, pure (German) 1-125 gr., Strychnine sulphate 1-500 gr., Glonoin (nitroglycerin) 1-500 gr., Strophanthin 1-5000 gr." The combination is irrational and the dosage of the individual drugs, in most instances, absurdly small. Every one of the ingredients except digitalin may be disregarded either because of inertness or because of the small amount present, and the treatment then becomes one of digitalis. The selling name of "Cactus Compound" is a misnomer as the activity of the pill is that of the small dose of the digitalis glucoside. The pill is an illustration of how worthless drugs are perpetuated. At one time it was thought that cactus had therapeutic value. During that time many "specialties" and proprietaries bearing its name were put on the market. Although the drug is now known to be worthless, these specialties continue to be sold (Jour. A. M. A., April 29, 1916, p. 1387).

ANOTHER RAP AT THE PUBLIC HEALTH DEPARTMENT.

(From the Journal of Maine Medical Association.)

The following joint resolution has been introduced by Senator John D. Works, of California:

Whereas, The American Medical Association is a national organization of physicians and surgeons of one school of medicine only and intended to advance the personal and private interests of its members; and

Whereas, One of the objects of said Association actively and aggressively prosecuted is to procure legislation, state and national, in the interest of the school of medicine represented by it and against all others; and

Whereas, The Public Health Service of the United States is intended to represent all classes of people of all medical or non-medical beliefs in national and interstate affairs; and

Whereas, The surgeon general of the Public Health Service has been elected president of the said Association and other officers of the Service have become members thereof; and

Whereas, It is believed that the best interests of the Public Health Service and of the people require that its officials and employees be free from influence or control by any school of medicine, or mode of healing; now, therefore,

Resolved, That it shall be unlawful for any officer or employee of the Public Health Service of the government to be or become a member or officer of, or in any way connected with, any medical or private health association or organization of any kind.

Dr. Rupert Blue, surgeon general, is president-elect of the American Medical Association. This is purely an effort on the part of the medical profession of this country to honor Dr. Blue and to show our appreciation of the great work which he has done.

The Senator who introduces this resolution has opposed all efforts to improve the condition of the Public Health Service, and is an ardent advocate of Christian Science. This latter fact does not react in any way so far as the medical profession is concerned, as we are accustomed to take a man at his true value, and judge him only by his individual acts, as a citizen in his community.

These resolutions not only require the surgeon general, but all surgeons in the Public Health Service, to terminate their membership in the various medical societies. Probably no one factor has worked to greater advantage to the country as a whole as the affiliation of the Public Health Service working jointly with the American Medical Association and other such organizations. Outside of our cities the public health matters are left in the hands of some local physician and the community is dependent upon him. If you will read these resolutions carefully, they seem to have an element of justice in them, and it forces one to realize that the present age or generation demands a more exact and businesslike relationship between the physician and the public rather than the ethical one which has always dominated this body of men.

It is no longer possible to go before a legislative body or city government and secure the passage of ordinances or acts aimed towards the betterment of public health on the merits of the case alone. It is time that the medical profession should give more thought to these matters and endeavor to see them in their true light.

It has been stated by an eminent legislator that the physician can be the most powerful factor in his community, and, should he so desire, could control more votes than any man outside of politics. Whether this be true or not, it would seem advisable to talk these matters over with the members of our Legislature and Congress, and endeavor to give them the true aims of the medical profession.

DINING CARS.

The dining car department of the American railroad, one of the big elements in the luxury of passenger service, is a bigger institution than the average traveler imagines. An idea of its magnitude and importance may be gathered from figures gathered by Superintendent Allan Pollok of the Dining Car and Restaurant Department of the Southern Pacific.

"The Southern Pacific," says Mr. Pollok, "has 105 diners, 63 buffet cars, four cafe cars and one lunch car. Its dining car mileage last year was 10,832,847 and 3,207,353 persons were fed on the diners. We have 107 commissary employees, 824 car employes, 80 stewards, 327 cooks, 367 waiters and 52 porters. In equipment we use 65,625 pieces of silver, 131,797 napkins, 36,098 tablecloths, 19,425 pieces of glassware and 71,820 pieces of chinaware. On the diners we used last year 636,732 pounds of fresh meat, 189,804 pounds of poultry, 17,436 gallons of cream, 123,436 gallons of milk, 36,000 loaves of bread and 85,846 dozen eggs. On the steamers we served 1,101,015 meals, using 120,792 pounds of fresh meats, 1200 pounds of poultry, 1200 gallons of cream, 38,687 gallons of milk, 24,624 pounds of butter, 31,442 dozen eggs and 82,254 loaves of bread. Our fifteen restaurants, alone, served 1,612,293 meals.

All purchases for the department are made at headquarters on the tenth floor of the Flood building, San Francisco. Goods purchased in carloads are delivered to the general store at Kirkham street, West Oakland, where complete stock to the value of over \$100,000 is maintained, and

from there shipped, in small quantities, to the different points.

The chief commissaries are at West Oakland yards, Northern lines; Los Angeles, Southern lines; Ferry building, San Francisco, for steamers and ferries; Houston for the Sunset lines.

Other commissaries are situated at Third and Townsend streets, San Francisco; New Orleans, San Antonio, El Paso and Ogden.

The Los Angeles commissary is the latest—having been completed in June, 1914. It is without doubt the most convenient and complete one in the country.

The preserved fruits and vegetables are the best that money can buy. The butter is especially prepared for our service. Eggs are received from the farm at different points daily. All pies and rolls are baked either in our commissaries or in our cars. Cream is delivered in one-gallon, non-returnable tins. It is pasteurized and tested every morning at the commissary and once a week samples are sent to the University of California and there tested.

SACRAMENTO COUNTY.

The regular April meeting of the Sacramento Society for Medical Improvement was called to order at 8:30 p. m. by President J. H. Parkinson.

Minutes of the past meeting read and approved.

Reports of cases:

Muscular Dystrophy (?) by F. F. Gundrum, M.D.

Fracture of Hip, by J. B. Harris, M.D.

Paper of the evening—Servian Experiences, by S. O. Beasley of San Francisco.

Report of delegates postponed until supper time.

Report of Committee on Formation of Medical Milk Commission made by Dr. E. W. Twitchell, chairman.

Recommended that committee be formed for the certification of milk which committee shall attend to proper details for establishing its own standing, state and national. This committee shall be appointed by the chair. Probably (1) tuberculin testing, (2) bacterial count, (3) scoring may be secured through state, county and city officers at no expense to the society. Dr. Twitchell, chairman. Moved and seconded report be received and recommendation concurred in; carried. Moved and seconded chair appoint committee as outlined by Medical Milk Committee, carried. Dr. Parkinson appointed Drs. E. W. Twitchell, chairman; J. W. James, T. J. Cox.

Drs. Phillip G. Young, Timothy Lyman and J. Wm. Crawford elected to membership.

Adjourned at 11:30.

F. F. GUNDRUM, M. D.,
Secretary-Treasurer.

SAN JOAQUIN COUNTY MEDICAL SOCIETY.

The regular monthly meeting of the San Joaquin County Medical Society was held on Friday evening, April 28th, at the Chamber of Commerce quarters. Those present were Drs. F. P. Clark, E. A. Arthur, C. R. Harry, C. F. English, B. J. Powell, H. J. Bolinger, L. Dozier, J. T. Davison, W. F. Priestly, J. D. Dameron, R. T. McGurk, J. V. Craviotto, B. F. Walker, S. E. D. Pinniger, Margaret Smyth, Minerva Goodman, W. J. Backus, H. E. Sanderson and D. R. Powell with Dr. S. O. Beasley of San Francisco as guest of the evening and about forty invited guests from the training schools of the various hospitals and ladies of the Red Cross.

President Clark called the meeting to order at 9 p. m. and introduced Dr. Beasley, who had but recently returned from six months' service with one of the American Red Cross units in Belgrade, Servia. Dr. Beasley gave a wonderfully interesting talk upon first hand experiences in the war-stricken country, dealing particularly with the hospital service in handling the wounded and thousands of the typhus cases.

At the close of Dr. Beasley's talk, the president

called for the reports of the delegates to the State Society, and the meeting adjourned at 11 p. m. after a vote of thanks to Dr. Beasley for his courtesy in making the trip to Stockton.

DEWEY R. POWELL,
Secretary.

PROCEEDINGS OF THE SAN FRANCISCO COUNTY MEDICAL SOCIETY.

During the month of April, 1916, the following meetings were held:

Tuesday, April 4th, Section on Medicine.

1. Sacro-Iliac Slip. Presentation of Case.—J. T. Watkins.
2. Exfoliative Dermatitis Following Neosalvarsan Injections.—René Bine.
3. Gastric Atony.—W. F. Cheney.
4. The Treatment of Arthritis.—C. C. Crane.
5. Importance of the Anamnesis in Diagnosis.—A. Marion Reed, Clyde T. Wetmore.

Tuesday, April 11th, General Meeting.

1. High Calorie Feeding in Typhoid Fever in Children.—H. H. Yerington.
2. Some Conditions Underlying Gastric Peristalsis.—W. C. Alvarez.
3. Modern Medicine in Warfare.—B. Jablons.

April 25th, Joint Meeting with California Pediatric Society.

The Problem of the Defective Child.—Alexander Johnson, of the Vineland Institute for Feeble-minded, Vineland, N. J.

SISKIYOU COUNTY.

Until the May Journal came out I was under the impression that I had reported our last medical meeting. This meeting was held at Peters and DeWitt hall, April 3rd. Dr. C. W. Nutting, Sr., gave a very interesting talk on "Fractures," being made more interesting by the recitation of personal experiences.

It was moved and seconded and ordered that the resolutions passed by the Southern Medical Society of Texas, asking for ample medical service in the increase to the United States Army proposed by the Administration, be similarly adopted. Copies were sent to the Secretary of War and the congress representatives of this district. The regular routine of business was carried out and several committees appointed. The next regular meeting will be held at Etna Mills on July 3, 1916. The meeting was then adjourned.

J. ROY JONES, Secretary.

REPORT OF THE MAY MEETING OF THE STATE BOARD OF HEALTH.

The regular monthly meeting of the State Board of Health was held May 6th, in Sacramento. There were present Dr. George E. Ebright, president; Dr. F. F. Gundrum, vice-president; Dr. Edward F. Glaser, Dr. Adelaide Brown, Dr. Robert A. Peers, and Secretary Wilbur A. Sawyer.

In order that there may be no pollution of water supplies above the intake of the Los Angeles aqueduct, Carl Wilson was appointed an inspector of the State Board of Health without pay, charged with the duty of enforcing State laws and regulations of the State Board of Health pertaining to stream pollution.

A petition from stockmen and citizens of Modoc County asking for a continuance of rabies eradication measures was read.

The following agreement with the Health Department of the State of Oregon regarding the transfer of sheep dogs, drawn up by the secretary, was confirmed by the Board:

"The California State Board of Health and the Oregon State Board of Health, in view of the

fact that an effective campaign for the eradication of rabies is being carried on in Modoc County (and also those counties bordering upon the state line which separates the two states, in which future eradication campaigns may be instituted), hereby subscribe to the following agreement permitting, under certain conditions, the taking of sheep-dogs across the California-Oregon boundary between the above mentioned counties, said agreement to go into effect April 7th, 1916: One sheep-dog, but not more than one, muzzled with an efficient wire-cage muzzle, and actually used in herding sheep, shall be allowed to cross the state line with each five hundred (500) sheep, provided that the herder in direct charge of the dog has in his immediate possession a signed permit for the dog from the proper authorities of the state into which the dog is being taken. The state authorities issuing the permit are to be the California State Board of Health and the Oregon State Board of Health, or their authorized representatives. The permit must contain an identifying description of the dog and the name of the owner of the sheep. All dogs taken from one state into the other are to be strictly controlled in accordance with the regulations in force in the state into which they are being taken, and state officers issuing permits are instructed to inform applicants regarding the regulations of the state into which the dog is to be taken.

"(Signed) DAVID N. ROBERG,
Oregon State Board of Health.
"(Signed) W. A. SAWYER,
California State Board of Health."

The failure of H. J. Curry, an undertaker of Martinez, to file a death certificate within the time prescribed by law was referred to the District Attorney for prosecution.

The case of John Slavin, keeper of the Russian Cemetery in Los Angeles, who allowed the body of a child to be buried in the above named cemetery without a burial permit, was referred to the District Attorney for prosecution.

The matter of the enforcement of the birth registration law was put over until next month for suggestions from the secretary. The matter of changing the present registration law so as to conform to the model law was referred to the secretary for deliberation and suggestion. It was suggested that five days be the time within which a birth must be reported.

The Board passed resolutions regarding the epidemic of scarlet fever in Auburn. These require that contacts be quarantined from school and public assemblies for twelve days and that the quarantine period shall be at least thirty days and until all clinical symptoms (ears, glands, nasal, or throat discharges, etc.), have subsided, and that physical examinations shall be made of all residents and employees of dairies supplying milk to Auburn.

The following resolution relative to the failure of five health officers to report the presence or absence of communicable disease was passed:

"Whereas, The following five out of 285 health officers of California have failed to file any reports regarding the presence or absence of communicable diseases during the present year in accordance with the law, although repeatedly warned; therefore, be it

"Resolved, That the local authorities be requested to remove them and appoint efficient health officers in their places and that the names of the five delinquents be published in connection with the minutes of this meeting as follows: Dr. D. L. Martin, Orland; Dr. T. K. McHugh, Rialto; Mr. James V. Chase, Mill Valley; Dr. J. A. Parks, La Mesa, and Dr. S. G. Bransford, Fairfield."

It was decided that in accordance with the rec-

ommendation of the Director of the Bureau of Sanitary Engineering, the use of the de la Guerra wells without chlorination is prohibited and until such time as analyses indicate that the entire Santa Barbara supply is safe, a temporary permit only be granted in answer to the application of the petitioner, the City of Santa Barbara.

The Board decided, in accordance with the recommendation of the Director of the Bureau of Sanitary Engineering, that a temporary permit be granted to the city of Willows to dispose of its sewage on to the present 160-acre farm, pending the inauguration of more satisfactory methods of sewage disposal by the city.

It was decided that, in accordance with the recommendation of the Director of the Bureau of Sanitary Engineering, a temporary permit be granted to the city of Holtville to dispose of its sewage as at present and that the matter of granting a permanent permit be deferred to allow the installation of improvements as outlined in the report of the Bureau of Sanitary Engineering, dated April 14th, 1916.

It was decided by the Board that, in accordance with the recommendation of the Director of the Bureau of Sanitary Engineering, a temporary permit be granted to the city of Santa Barbara to dispose of crude sewage into Santa Barbara Channel as carried on at the present time, pending the formulation of plans and the construction of works as outlined in the report of the Director of the Bureau of Sanitary Engineering, dated March 6th, 1916.

The Board decided that, in accordance with the recommendation of the Director of the Bureau of Sanitary Engineering, a temporary permit be granted to the Redding Water Company to continue to supply water to the city of Redding, and that action be deferred on the granting of a permanent permit until works which secure improvements equivalent to those recommended in the report of Mr. Ralph Hilscher of the Bureau of Sanitary Engineering, under date of April 6, 1916, have been installed.

Resolutions and application from the cities of Pasadena and Alhambra to construct and maintain a tri-city sewage disposal plant in the county of Los Angeles was referred to Mr. C. G. Gillespie for consideration and recommendation.

It was decided that the state tuberculosis subsidy be not allowed to patients suffering from tuberculosis and being treated in buildings other than those which have been accepted by the State Board of Health.

The president appointed the following committee to supervise the questions prepared by the Director of the Bureau of Registration of Nurses for the forthcoming examination to be held in Los Angeles, Sacramento and San Francisco, on June 13th and 14th: Dr. Adelaide Brown, Dr. Robert A. Peers and Dr. F. F. Gundrum.

In the matter of co-operation between the Bureau of Registration of Nurses and the State Civil Service Commission, it was decided that the holding of civil service examinations for state or county positions the examinations be given only in case the applicants are registered nurses or have applied in the regular way for examination to become a registered nurse.

In accordance with the recommendation of the Director of the Bureau of Registration of Nurses, the following applicant having complied with the law, Section 8, Chapter 319, and with the rules and regulations of this Board, was granted a certificate as registered nurse: Sister Emile Teresa Neidhamer, No. 5281.

The report of the Food and Drug Inspection Committee for April was received and the action contained therein approved.

The Board then considered the violations of the Food and Drugs Act set for this date.

PUBLICATIONS

Mosquito Control in Panama. The Eradication of Malaria and Yellow Fever in Cuba and Panama. By Joseph A. LePrince, C. E., A. M., Chief Sanitary Inspector, Isthmian Canal Commission 1904-1914, and A. J. Orenstein, M. D., Asst. Chief Sanitary Inspector, Isthmian Canal Commission. G. P. Putnam's Sons, 1916.

We have all been hearing and reading, for a number of years past, of the wonderful achievement in sanitation which we Americans have been accomplishing on the Isthmus of Panama under the leadership of Colonel (now Surgeon General) Gorgas, but heretofore we have not had set before us the exact mechanism of this work.

The present work, "Mosquito Control in Panama," contains the accumulated experiences of over ten years of mosquito eradication work carried out under the most varied and difficult conditions imaginable. The constantly high temperature, frequent rains, tropical vegetation, accidents of terrain, and above all, a constantly and kaleidoscopically changing surface due to the engineering portion of the construction of the canal, all of these factors producing ideal mosquito breeding conditions. In addition to this the presence at all times of the day and night of large forces of men, made for a situation requiring very fine executive ability and a constantly increasing knowledge of mosquito conditions.

To us in California, this work is invaluable, containing as it does, all of the situations that will, or can be met here in anti-malarial work, with this difference in our favor, however, that we start out with a tremendous advantage; namely, a dry season lasting over a period of six months.

Fascinating chapters in the book are those describing the study of the flight of the swarms of mosquitoes from their favorite breeding grounds to some favorite human feeding ground, and the influence of air currents on these flights. The chapters on the methods of eradication of breeding places are literally invaluable to the field sanitarian who shall have to properly gauge their relative value and the proper application of the exact measure necessary to employ; when to fill, when to drain, when to employ oil or larvicide; in the matter of drainage alone there are detail questions of enormous economic value; for instance, there are favorite anopheles breeding places that have been permanently eliminated by tile drains where open drainage by trenches would have been an economic waste; pitfalls there are all along the line for an inexperienced worker, for a single mistake in judgment in the execution of the work will render worthless whole series of expensive drains.

The work is written in such a manner that it can be readily understood by both physicians and laymen and, here in California, it should be in the hands of almost every one in the malaria-infected sections of the State.

G. M. C.

Surgical Operations With Local Anesthesia. Second Edition. By Arthur E. Hertzler, A. M., M. D., Ph. D., F. A. C. S., Surgeon to the Halsted Hospital, Kansas; Swedish Hospital, Kansas City, Mo.; General Hospital, Kansas City, Mo. 327 pages; 173 illustrations; Cloth Bound, Price \$3.00. Surgery Publishing Company, New York, 1915.

This is a book principally for utility and it has derived a great deal from other authors, but has given credit. It is replete with illustrations giving in detail the exact technic for many operations both major and minor—some of them the general operator will never use. There are 173 illustrations, all of more or less value; those particularly to be commended represent the injection of the

Gasserian ganglion and the branches of the tri-facial nerve; nerve-blocking operations on the jaw and those on the thorax.

While it is questionable whether all these operations may be employed with advantage they certainly suggest a much wider application of the method of operating under local anesthesia.

That there is a larger field for this work than is ordinarily understood is pretty well conceded by those well versed in surgery.

The book is to be heartily recommended to those who need it. S. T. P.

The Medical Clinics of Chicago. Volume I, Number IV (January 1916). Octavo of 200 pages, Philadelphia and London: W. B. Saunders, 1915. Price per year—Paper, \$8.00; Cloth, \$12.00.

Contents.

Clinic of Dr. Frederick Tice—Epidemic Cerebrospinal Meningitis. Case of Bilateral Tuberculosis Associated with Pick's Cirrhosis. Acute Endocarditis with a Complicating Meningitis.

Clinic of Dr. Walter W. Hamburger—Primary Carcinoma of the Liver.

Contribution of Dr. George H. Weaver—The Schick Reaction.

Clinic of Dr. Charles Louis Mix—Upper Lobe Pneumonia. Symptoms due to Adhesions Following an Old Appendicitis.

Clinic of Dr. Ralph C. Hamill—Tic Douloureux; Injection of the Gasserian Ganglion; Technic of Operation. A Condition Resembling Landry's Paralysis in a Syphilitic.

Clinic of Dr. Charles Spencer Williamson—Three Cases of Malaria. Hemorrhagic Pleurisy. Trichinosis.

Clinic of Dr. Robert B. Preble—Pleurisy with Effusion Producing Great Cardiac Displacement. Unilateral Edema with Pleural and Abdominal Effusion Due to Papillomatous Ovarian Cyst.

Clinic of Dr. Maurice L. Goodkind—A Fulminating Cerebrospinal Meningitis Due to the Pneumococcus. Aplastic Pernicious Anemia. Primary Adenosarcoma of the Mediastinum. (Inoperable.)

Clinic of Dr. Isaac A. Abt—Infantile La Grippe.

The Clinics of John B. Murphy, M. D., at Mercy Hospital, Chicago. Volume V, Number II (April 1916). Octavo of 176 pages, 32 illustrations. Philadelphia and London: W. B. Saunders Company, 1916. Published Bi-Monthly. Price per year—Paper, \$8.00; Cloth, \$12.00.

The Practice of Obstetrics. By Edward Bradford Cragin, A. B., A. M., (Hon.), M. D., F. A. C. S. Professor of Obstetrics and Gynecology College of Physicians and Surgeons, Columbia University, New York. Assisted by George H. Ryder, A. B., M. D., Instructor in Gynecology, College of Physicians and Surgeons, Columbia University, New York. Illustrated with 499 engravings and 13 plates.

The author states in the preface that "the work, in the methods advocated, is based upon the statistical results of the Sloane Hospital and upon the experience gained by the author in the hospital and private practice. Another object of the work has been to present American statistics in Obstetrics."

The author has had such a wonderful opportunity in having this most splendidly equipped hospital and its large clinical material at his disposal and under his direct supervision that he is admirably fitted for writing this book. It is clear, concise, logical and thorough. Throughout the entire book one feels the distinct personal touch of the author, and this increases immensely the interest and pleasure in reading this work. The illustrations and plates are well executed and very instructive.

The divisions of the subject matter are logical and are arranged so that the student goes progressively from the fundamental and normal through all the various abnormal conditions of pregnancy, labor and the puerperium.

The chapter on the Puerperium and its management is especially good and gives in detail many things which are omitted from the majority of textbooks on Obstetrics. The information in regard to artificial feeding of newborn infants is explicit and goes far in making easy what is often a knotty problem for the general practitioner and the medical student.

Part 5, which has to do with Obstetric Surgery, is clear and well written. The author gives general rules for obstetrical operations and his results certainly justify his treatment in these cases. He is conservative throughout; especially so in regard to the major operative procedures.

Although the bibliography is limited and the historical side has not been deeply gone into, this book can be most highly recommended to students and practitioners of Obstetrics. It will most certainly become one of the most popular books on the subject. H. A. S.

Studien über Darmträgheit (Stuhlverstopfung) ihre Folgen und ihre Behandlung. By Franz Xav. Mayr. Berlin: S. Karger. 1912.

In opening this book on constipation we were delighted to find a man who knows a good deal about the normal mechanism of the tract whose abnormalities he proposed to describe and repair.

The first chapter on the physiology of the intestinal movements is a very good résumé of the literature. Nowhere have we seen it so clearly stated that the bowel is something like a railroad with a block system. Food goes forward when the region next below empties and progress is stayed if there is inflammation or other cause for increased irritability in a lower segment. This is true not only for the intestine, but similar laws govern the emptying of the stomach. The presence of food in the duodenum or the distension of this region in any way will delay the progress of material through the pylorus.

After such a promising beginning it was disappointing to find the author lapsing into a fault common to many European writers and that is: the elaboration of beautiful classifications in which many of the headings are inserted to satisfy vague etiological theories and not because they happen to fit into the clinical picture or because they are supported by any experimental evidence.

Another fault which must be mentioned is common to many writers on constipation and auto-intoxication. The author is so interested in the colon that it has become for him the essential organ of the body and the sources of all ills with the exception, possibly, of the infectious diseases. We were surprised to learn that enteroptosis is caused by constipation; appendicitis is due to it; as are angina pectoris, duodenal ulcer, menstrual disorders, gout, etc. In fact, as he says on page 174, there is not an organ in the body that is not seriously influenced by constipation. He believes that ordinarily there is a marked fermentation of the stagnating intestinal contents and that this results in auto-intoxication, colitis and other bodily calamities. Although such cases do occur, it does not seem to us that they are as important nor as commonly met with as Mayr would lead us to believe. In most constipated people who are not taking purgatives daily the feces show no signs of fermentation and it does not seem possible that the body could absorb back anything from such dry, hard lumps.

The specialist must remember not only that the organs he treats can influence all others in the body, but that all others can likewise alter conditions in his chosen field. He should note that there are others who are just as eager to ascribe

all human ills to eyestrain, veagotonia, syphilis, ovarian disease, disturbances of internal secretion, etc. Such enthusiasts undoubtedly do good by rousing the profession to the importance of these factors in certain cases; but we cannot help distrusting them as teachers and practitioners of medicine.

In spite of the drawbacks, Dr. Mayr's wide knowledge of the literature has enabled him to write a book which is more worthy of study than are some others better known to the American profession.

W. C. A.

Principles and Practice of Physical Diagnosis. By John C. DaCosta, Jr., M. D., Assistant Professor of Medicine, Jefferson Medical College, Philadelphia. Third Edition, thoroughly revised. Octavo of 589 pages with 243 original illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$3.50 net.

This, the third edition of the work, has been revised, new material has been added and some parts have been deleted to keep the size of the book down. As usual with such books, most of the space is taken up with a discussion of diseases of the lungs and heart. Considerable attention has been paid to modern methods in studying the heart, particularly to the electrocardiograph. The X-ray side of diagnosis seems a little weak but diagnosis is now so large a subject that in order to keep the book within the bounds of 600 pages, much must be left out. The author has wisely refrained from entering the field of laboratory diagnosis and has devoted his attention almost entirely to "physical diagnosis" and its mechanical aids.

Dr. DaCosta pays a great deal of attention to the pathology of the conditions studied and introduces many illustrations showing the diseased organs obtained at autopsy.

The book should be particularly useful to medical students for whom it was apparently primarily written.

W. C. A.

Theory and Practice of Bloodletting. By Heinrich Stern, M. D., LL. D. New York: Rebman Company, 1915.

A book devoted to a review of the history of blood letting, its present status in medicine and proposing an enlarged utility for this practice.

It gives in detail the methods of phlebotomy, leeching and venepuncture, advocating the author's method of doing the latter.

It goes into the theories of the effect of blood-letting and advocates its use as a more general remedial measure. It discusses its application in pulmonary diseases, plethora, heart lesions, uremia, eclampsia, chlorosis, migraine and several other conditions. It places therapeutic bleeding in a better light.

S. T. P.

Cancer of the Stomach. A Clinical Study of 921 Operatively and Pathologically Demonstrated Cases. By Frank Smithies, M. D., Gastroenterologist to Augustana Hospital, Chicago. With a Chapter on the Surgical Treatment of Gastric Cancer, by Albert J. Ochsner, M. D., Professor of Clinical Surgery in the University of Illinois. Octavo of 522 pages with 106 illustrations. Philadelphia and London: W. B. Saunders Company, 1916. Cloth, \$5.50 net; Half Morocco, \$7.00 net.

This monograph of 500 pages is a presentation of the observations of its author. The 921 cases observed include those seen by Smithies at the University Hospital, Ann Harbor, Mayo Clinic and at the Augustana Hospital in Chicago.

In considering the etiology of cancer, it is shown that cancer is on the increase relatively and absolutely. There is an interesting discussion of the relation of gastric cancer to race, occupation, age, sex and social status. Especial attention is paid to the relation of gastric ulcer to cancer.

The chapter on morbid anatomy is splendidly illustrated by photographs of gross specimens and by many excellent micro-photographs. These are taken largely from the works of Wilson and MacCarty.

The symptomatology of gastric cancer is grouped under six symptom-complex heads:

1. Gastric cancer in individuals who came to laparotomy for clinically benign gastric ulcer, and in whom cancer was diagnosed microscopically.

2. Gastric cancer clinically developing in patients with years of antecedent dyspepsia of the "peptic ulcer type," in whom malignancy subsequently appeared.

3. Gastric cancer in individuals who prior to the onset of a malignant disease had enjoyed perfect gastric health.

4. Gastric cancer in individuals in whom malignancy followed periods of gastric disturbance of no clinical type.

5. Gastric cancer in individuals who presented few clinical evidences of a malignant process primary in the stomach wall.

6. Gastric cancer secondary to an extragastric malignant process.

The details of studying the gastro intestinal function have been given at some length. This includes the study of gastric contents, motility, feces, etc.

The chapter on roentgenology is abundantly illustrated.

"Differential diagnosis" is a very good summary of the book. The author takes cognizance of all the aids to diagnosis. He warns against laying too much stress on any one point. He says "There is too much unnecessary and usually valueless quibbling over finer points of differential diagnosis in abdominal disease. This is often to the patient's detriment. While learned, pseudo-scientific investigations are being carried on, or while certain medical attendants are awaiting the appearance of their pet differential points, not infrequently the subject of the research passes on beyond any form of aid. Rash surgery is to be condemned, but a sharp scalpel is often a more differential diagnostician than is the keenest mind, medically."

Two types of treatment are considered. The surgical treatment is very clearly presented by Ochsner. The operations are easily grasped on account of the well chosen drawings which illustrate the various procedures.

The indications for the different operations are given. Also the preparation of the patient and the after care.

The non-surgical treatment includes prophylaxis, care of mouth and bowels as well as the care of the local condition. Vaccine treatment, serotherapy and chemotherapy are briefly mentioned.

The book is well written. It represents the results of a wide experience. It is well worth the careful attention of any physician, surgeon or student.

J. P. P.

Principles and Practice of Obstetrics. By Joseph B. De Lee, A. M., M. D., Professor of Obstetrics at the Northwestern University Medical School. Second edition, thoroughly revised. Large octavo of 1087 pages, with 938 illustrations, 175 of them in colors. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$8.00 net; Half Morocco, \$9.50 net.

This compend of obstetrics is profusely illustrated and systematically arranged to meet the needs of the busy general practitioner. The volume is attractive for undergraduates, but is too extensive for them to read thoroughly in the crowded curriculum of the modern medical school. The short bibliography at the end of each chapter will prove of some aid to men who desire to study more in detail general obstetric problems, and will direct them to the more complete references contained in the German texts.

A. B. S.

Practical Cystoscopy and the Diagnosis of Surgical Diseases of the Kidneys and Urinary Bladder. By Paul M. Pilcher, M. D., Consulting Surgeon to the Eastern Long Island Hospital. Second Edition Thoroughly Revised and Enlarged. Octavo of 504 pages, with 299 illustrations, 29 in colors. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$6.00 net; Half Morocco, \$7.50.

The second edition of this book follows the general arrangement of the original. The development of new urological methods in the last four years has necessitated an entire new section devoted to pyelography and re-writing of the chapter on diseases of the prostate and tests of renal function with many revisions throughout the remainder of the book. The contents are divided into seven parts:

1. The technic of cystoscopy.
2. The diseased bladder.
3. Diseases of the prostate.
4. Diseases of the ureter.
5. The functional activity of the kidneys.
6. Diseases of the kidney.
7. Therapeutic uses of the cystoscope.

The subject of cystoscopic technic is thoroughly treated in four sections: "The Cystoscope," a brief description of the various types of instruments with practical points in the care of them; "The Cystoscopic Examination," a practical outline of the preparation of the patient and of the technic of sterilization of instruments and of conduction of examination; "Pyelography," a concise exposition of the history, technic, value and accidents, with a few charts from the work of Dr. Braasch, and "the technic of ureter catheterism," for direct, indirect and open types of instruments.

Practical cystoscopy in its relation to diseases of the prostate, we believe, is all too briefly covered in Part III. The cystoscopic pictures which are given for the various forms of hypertrophy are vague and incomplete and two conditions, important from the standpoint of cystoscopic differentiation; namely, contracture of the vesical neck and the bladder, and of spinal disease, have no cystoscopic description. The description of renal function is rather barren in practical points. No mention is made of methods for the correction of errors due to unilateral inhibition of function following ureteral catheterization or to leakage about ureteral catheters. No detailed description of the various types of ureteral catheters, as those of Blasucci, Garceau, Albarra, etc., and their relative value and indications of use is given. The methods of deductive diagnosis followed in dealing with diseases of the kidney are both valuable and practical. The above criticisms are of very minor details. As a whole, the book is an excellent exposition of practical cystoscopy and may be read with profit by the specialist and the general practitioner.

F. H.

The New Public Health. By Hibbert Winslow Hill. New York: The Macmillan Company, 1916.

This is a valuable little book, not because it presents new facts regarding public health, but because it states the present day views in a somewhat radical manner that causes the medical man, graduated ten or fifteen years ago, to think and compare them with the old teachings which credit the cause of infectious disease to "fomites," "bad smells," "damp cellars," "leaky plumbing," "dust," "foul air," etc., the time when everything physically and sensorially objectionable was lumped together as a cause of disease. A typical example of "intensive direct contagion," as the author puts it, was when tuberculosis was considered non-infectious and hereditary; bubonic plague was banished from Cairo, Egypt, simply by improving the ventilation of the city, while the main issue of today in the control of public health is recognized as the

carrier of disease who was unknown or unrecognized under the old teaching and whose control forms the difficult problem of the sanitarium.

In this little book the author presents his argument in a forceful and interesting manner, which must commend itself to every practitioner of medicine.

W. C. H.

The Medical Clinics of Chicago. Volume I, Number V (March 1916). Octavo of 220 pages, 67 illustrations. Philadelphia and London: W. B. Saunders Company, 1916. Published Bimonthly. Price per year: Paper, \$8.00; Cloth, \$12.00.

Contents.

Clinic of Dr. James T. Case—Lantern Slide Clinic at St. Luke's Hospital, Roentgenologic Aspects of Intestinal Stasis.

Clinic of Dr. Chas. S. Williamson—Bronchiectasis with Secondary Cardiac Decompensation. Acromegaly of Long Standing Without Subjective Symptoms. An Acute Generalized Tubercular Adenitis (Bovine Type) Simulating the Abdominal Type of Hodgkin's Disease. Recovery Gangrene of the Lung. Drainage and Recovery. Carcinoma of the Stomach Simulating Pernicious Anemia.

Clinic of Dr. Robert B. Preble—Acute Nephritis Following Acute Tonsillitis. Anasarca and Uremic Convulsions, with Rapid Recovery. Cellulitis of the Chest Producing Profound Sepsis and Delirium.

Clinic of Dr. Ralph C. Hamill—Hysteria in a Strong Man. Traumatism of the Cauda Equina. Tumor of the Spinal Cord.

Clinic of Dr. Frederick Tice—Typhoid Fever Resembling Pneumonia. Banti's Disease. Autopsy Findings in the Case of Meningitis and Chronic Endocarditis, with Acute Exacerbation.

Clinic of Dr. Isaac M. Abt—Congenital Syphilis.

Clinic of Dr. Chas. L. Mix—Case of Mitral Insufficiency and Stenosis, with Embolus to the Brain. Primary Sarcoma of the Fibula with Metastases in Brain and Cervical Glands. A Case of Lung Abscess.

Nervous Children, Prevention and Management.

Beverly R. Tucker, M. D. Richard Badger, Boston, 1916. Price \$1.25.

This little book is not a text book for the student or specialist in the field of neurology and psychopathology, nor does it claim to be such. However, it is well worth reading by all who are interested in children, normal or abnormal. The subject matter is so clearly and entertainingly presented as to make the book of real value to parents, teachers and all professional workers among children. The chapters on heredity and environment, eugenics and social hygiene, and on puberty and adolescence are especially commendable for their sane broadness. One is pleased to note the emphasis placed upon the effects of the very early mental and physical environmental influences and the relation of training in good mental habits to the prevention of future nervous disorders in those predisposed to them; for this aspect of prophylactic mental hygiene is so often neglected and the responsibility is shunted to "heredity" instead of any effort being made to arrive at an accurate diagnosis. The importance of proper institutional training and of ungraded classes in the public schools for peculiar children whose parents are not equipped to fairly deal with them is pointed out, perhaps too briefly. In the section devoted to infantile paralysis one could wish for more detailed information, especially as to the importance and the means of preventing deformities, concerning which there is so much ignorance on the part of both the laity and the general medical man. This book is worth while if for no other reason than that it will help parents and teachers to understand nervous children better and so more intelligently sympathize with their difficulties.

H. W.

MRS. REINHARDT.

The Board of Trustees of Mills College (of Oakland, California) announces the election of Aurelia Henry Reinhardt, of the University of California, to the presidency of the College.

Mrs. Reinhardt is well known throughout California as a University Extension lecturer on English literature, and also, for three terms, as State chairman of literature of the California Federation of Women's Clubs. She is a life member of the Association of Collegiate Alumnae, a member of the Town and Gown Club of Berkeley, of the Prytanean and English Club of the University of California.

Mrs. Reinhardt has a national reputation also, as a scholar of distinction. After graduating from the University of California in 1898, she taught in the English department of the University of Idaho. In 1901-3 she was a scholar and fellow in English in the Graduate School of Yale University. While at Yale she edited and translated *The De Monarchia* of Dante Alighieri, and this publication is now a college text-book. Later she held a European fellowship. While in residence at Oxford University in England she edited and published *Epicœne*, or *The Silent Woman*, by Ben Jonson, for which she received the degree of Doctor of Philosophy from Yale University in 1905.

The new president of Mills College is a member of Phi Beta Kappa, of the Dante Society of America and of the Concordance Society of America.

A Californian by birth, but of New England ancestry, she is interested in the Daughters of the American Revolution, of which she is a chapter regent.

Her marriage to Dr. George F. Reinhardt, Professor of Hygiene of the University of California, took place in 1909. Dr. Reinhardt rendered eminent service not only to the cause of public health in California, but also, in organizing the Student Infirmary at Berkeley, he inaugurated the most successful attempt ever made in the United States to establish co-operative medicine. Thus this young Californian will always be known as a pioneer in the movement to secure "better doctoring for less money," the slogan of that distinguished physician of Boston, Richard C. Cabot. The exceptionally useful career of Dr. Reinhardt came to an untimely end with his death in 1914.

Mills College, for more than a generation known as Mills Seminary, used to be hidden away in the foothills on the eastern shore of San Francisco Bay. Several years ago the Seminary was discontinued, and to-day the College on the same site, with its 135 acres of picturesquely wooded campus, is included in the boundaries of the growing city of Oakland.

That a woman of the forceful personality and of the pre-eminent intellectual attainments of Aurelia Henry Reinhardt, accepts the presidency of Mills College is significant of the position that the only college for women on the Pacific Coast has a right to assume.

The members of the present Board of Trustees of Mills College are David P. Barrows, University of California, president; George C. Edwards, Warren Olney, George W. Scott, Mrs. Frank M. Smith, Mrs. E. C. Wright, Mrs. Alexander F. Morrison, Miss Janet C. Haight, Mrs. Sophie Fiske Peart, Miss Ethel Moore, Mr. Frank M. Smith, Rev. George Eldredge, John M. Chase, Rev. Frank Goodspeed, Guy C. Earl.

MEDICAL MEN OPEN HEALTH INSURANCE CAMPAIGN.

New York City.—The Social Insurance Committee of the American Medical Association has opened permanent headquarters at 131 East 23rd street, with Dr. Alexander Lambert as chairman, and Dr. I. M. Rubinow as secretary. The committee was recently appointed by the Council on Public Health and the Board of Trustees of the Association to make a study of health insurance from the medical

point of view and to co-operate in making provisions for the best form of medical service under such a system of insurance.

Dr. I. M. Rubinow, author of "Social Insurance" and a leading actuary, who is also a qualified physician, has resigned his work as chief statistician of the Ocean Accident and Guarantee Corporation in order to take up this work for the American Medical Association. "In the first place we have to bring the immense possibilities of health insurance before the rank and file of the medical profession and the public," he said. "Such insurance is, I believe, the greatest single constructive proposal of modern times. We want to secure the active co-operation of the eighty thousand members of the Medical Association to get the best possible system for this country coupled with an efficient medical service. To this end the medical problem has to be studied thoroughly."

When asked what terms for medical service laid down in legislative proposals the American Medical Association might accept, Dr. Rubinow said: "All detailed provisions relating to medical service were left open in the bills introduced this year by the American Association for Labor Legislation, for it was thought that the best course was to secure initiative on these lines from the great body of medical men themselves. So that we do not organize while in the dark about essential facts we are planning to make an extensive inquiry into the economic position of the medical profession—a subject about which many conflicting statements are made. Our aim is to bring the best results of medical research and practice to the care of the workers' health while guarding the legitimate interests of the medical profession."

Dr. Rubinow, who has been studying health insurance and advocating it for the past fifteen years, then referred to the conflict which arose between the British Government and the Medical Association at the time of the introduction of the British Health Insurance Act. "Such a conflict is unnecessary," he said, "and it is injurious to the public and to the doctors alike. Mutual confidence between the public and the medical profession is necessary to obtain good results and such conflicts are particularly harmful to the status of the medical profession. No cut and dried plan is being thrust upon the physicians of this country and it is up to us to improve upon Great Britain's experience."

OUTLINE OF POSSIBLE METHODS FOR THE ORGANIZATION OF MEDICAL SERVICE UNDER HEALTH INSURANCE.

(Tentative Draft Submitted for Criticism and Discussion.)

Arrangements for Medical Service.

- A. Conditions of service established
 1. By law
 2. By regulation of
 - a. State commission
 - b. State commission after consultation with representatives of physicians working in the insurance.
 - c. State commission with details left to d. and e. especially as to
 - (1) Method of payment.
 - (2) Limitation in number of insured patients.
 - (3) Supervision of physicians.
 - d. Carriers (association, societies, health insurance unions).
 - e. Body composed in part of representatives of carriers in each district and representatives of physicians elected by doctors working for the insurance in each district under the chairmanship of a member of the state controlling body or a judge.
 3. By law as to general principles with details left for regulation by one of the bodies under 2.

- B. Contracts for medical service to be made with
 1. State commission
 2. Carrier.

Free Choice.

- A. Of Doctor by Patient.
 I. Unlimited Free Choice.
 1. Among all practicing physicians.
 2. Among all legally qualified physicians.
 II. Organized Free Choice.
 1. From among the physicians on a "Panel";
 a. To which any duly qualified physician may belong;
 b. Which has been selected by the association (health insurance union) from among physicians
 (1) Legally qualified to practice
 (2) Physicians who have met a special test;
 c. Which is composed of the members of a local association of physicians.
 (1) Subject to the rights of individual physicians to refuse insurance work.
 (2) Subject to the understanding that all members will undertake insurance work.
 2. Subject to limitations placed on number of insured patients a doctor may care for
 a. By law
 b. By regulations
 c. By associations.
 III. Limited Free Choice among salaried physicians in the employ of the associations.
 IV. No choice; district medical officer of the society the only recognized physician.
 V. Special arrangements for patients desiring
 1. Unqualified physician (i. e. osteopath).
 2. Qualified physician not on panel.
- B. Refusal of patients by doctor.
 I. Refusal permitted on the grounds of
 1. Distance of patient from doctor's office.
 2. Already large list of patients.
 3. Liability of patient to become ill.
 II. Right of refusal to be
 1. Specified in the (law), (medical benefit regulations), (rules of the association).
 2. Left to the discretion of doctor.

Representation of Doctors.

- A. Possible methods of representation.
 I. Central bodies.
 1. Membership on state social insurance commission.
 2. Medical advisory board to social insurance commission.
 3. State medical society acting in an advisory capacity.
 II. Local bodies.
 1. Committee representing all doctors in the district.
 2. Committee representing all insurance doctors in (district) (of each association), (of each health insurance union).
 3. Membership on (board of directors of association), (committee of association).
 4. Medical advisory committee to association.
 5. Special committee for disputes.
 B. Matters on which the medical profession may desire representation.
 I. Formulation of medical benefit regulations, with provision for
 1. In normal times
 a. Terms of service.
 b. Rates of payment.
 c. Methods of payment.
 d. Size of panels.
 e. Maintenance of high standards of practice.
 2. In abnormal times
 a. Agreements between medical profession and the Commission when asso-

ciations fail to provide adequate medical care.

- b. Each equivalent of medical care.
 c. Authorization of other arrangements by associations.

- II. Settlement of disputes between
 1. Insured persons and doctors.
 2. Associations and doctors.

Supervision of Doctors.

- A. Bodies through which supervision is possible
 I. Social Insurance Commission.
 II. Central body representative of physicians
 1. Medical advisory board acting in an advisory capacity to the Commission.
 2. Inquiry committee for the special consideration of disputes.
 III. Local bodies representative of physicians of the district.
 1. Local medical committee representative of all the physicians.
 2. Local panel committee representing all the insurance doctors of the (association), (health insurance union), (the district).
 IV. The health and trade health associations through
 1. Confidential medical advisors appointed by
 a. Association.
 b. Physicians.
 c. By two parties.
 2. Special committee such as
 a. Conciliation committee composed of doctors and representatives of the association to deal with disputes between the doctors and the association.
 b. Arbitration committee, representing the doctors, the associations, and the public, to act as a court of appeal in disputes.
 V. Board of Health.
 1. Local.
 2. State.

- B. Points upon which supervision may prove necessary according to European experience, and which therefore should be distributed among the possible supervisory bodies.

- I. Character of medical care provided.
 II. Professional practices.
 1. Inquiry into the extent to which doctors give certificates.
 2. Examination of patients suspected of malingering.
 3. Examination of doctors' accounts to see that charges are correct.
 4. Inquiry into the extent to which doctors give prescriptions, as well as into the character of prescriptions.
 III. Dismissal of doctor from insurance practice.

HAY-FEVER WEEDS AND HOW THEY MAY BE RECOGNIZED.

With the approach of early summer, the hay-fever sufferer looks forward with dismay to the beginning of his trials. The efforts which have been inaugurated in many of the States to eradicate or control the hay-fever weeds give promise of the eventual eradication of hay-fever, but these measures should be commenced at once in order to be effective.

Fortunately the weeds that are the most noxious to the hay-fever sufferer are already on the black list of the farmer, and have no redeeming features in color, scent or utility. Their chief characteristics are as follows:

1. They are wind-pollinated.
2. Very numerous.
3. The flowers are inconspicuous, without bright color or pleasant scent.
4. The pollen is found in great quantities.

All hay-fever weeds are wind-pollinated, otherwise their pollen would not be in the air to irritate the nostrils of susceptible persons. Bright colors and sweet scent are intended to attract insects for fertilization, and are therefore absent in hay-fever weeds which are wind-pollinated.

Among the hay-fever weeds which will soon be in flower and distribute their noxious pollen are the yellow dock (*Rumex crispus*), careless weed (*Amaranthus spinosus*), cockle bur (*Xanthium strumarium*), etc. The grasses also are noxious to a certain class of hay-fever sufferers and should not be allowed to bloom unless intended for seed.

Dr. Scheppegegrell, president of the American Hay-Fever Prevention Association, calls attention to the daisy fleabane (*Erigeron*) which is beginning to bloom and whose toxicity has recently been established by this association. Children collect these flowers and in one whiff will inhale sufficient pollen to cause a paroxysm of hay-fever lasting three to five days. Such attacks are almost invariably attributed to "colds," the real cause not being suspected. It may, in addition, cause a "sensitization," which will make the child susceptible to hay fever in later years.

From an agricultural standpoint, weeds already cost the farmer millions of dollars annually. When we add to this the economic loss due to hay-fever caused by these weeds, several millions may easily be added. The representatives of our agricultural and legislative interests should therefore unite with the health authorities to eradicate the hay-fever weeds, which are alike a nuisance to agriculture and a reproach to preventive medicine.

BIRTH REGISTRATION IN SAN FRANCISCO.

At the Civic Auditorium during Baby Week, March 9-16, 1916, an opportunity was given parents and friends to register every baby under a year of age.

These cards were filled out and sent to the Department of Vital Statistics at the State Board of Health:

BIRTH REGISTRATION

The Baby's Right as a Citizen.

Fill out this card and we can tell whether your baby is recorded by the State of California.

Baby's Name.....
Address (at time of birth).....
Date of Birth.....
Parents' Names.....
Address (now).....
Doctor's or Midwife's Name.....

The results are as follows:

	On File
From San Francisco county....143	110
From other counties..... 13	8
	155
	118

Thus 76.1% were recorded and 23.9% were not recorded.

At a similar examination made last year in Los Angeles 60% of births were found to be recorded.

The matter of birth registration is one of serious import to the child, both for a working certificate if he has to leave school for that purpose, and for establishment of citizenship in the United States. To be within the registration district of the United States a state must register at least 90% of all births. This failure to comply with the State Law is due to lack of appreciation of the value of the registration on the part of the physician in charge and it is hoped that this small investigation will bear fruit in better birth registration.

The State Board of Health's department of vital statistics will look over any group of cards similar to these provided they are collected for babies under one year.

ADELAIDE BROWN,

Member State Board of Health.
Chairman Public Health Committee, San Francisco Civic Centre.

NEW MEMBERS.

Dotson, Eli E., Escondido.
Scott, Gavin S., Ramona.
Pickard, Rawson Jos., San Diego.
McGinnis, George Henry, San Diego, Cal.
Riewel, Henry V., Oceanside, Cal.
Wessels, Andrew Benj., San Diego, Cal.
Myers, Alfred Edward, San Francisco.
Freyermuth, O. G., San Francisco.
Thomas, Robt. W., San Diego.
Thayer, Lyman Elanson, Los Angeles.
Brown, Joseph Richard, San Francisco.
Helms, George L., Hilt, Cal.
Hatteroth, W. H., San Francisco.
Dannenbaum, S. R., San Francisco.
Franklin, Blake, Sacramento.
Downing, W. E., Rio Vista.
Stevenson, Geo. L., Sacramento.
Bramhall, R. N., Fair Oaks.
Young, Philip G., Sacramento.
Jablons, Benjamin, San Francisco.
Felch, M. F., San Francisco.
Neel, Jos. Craig, San Francisco.
Spalding, Robt. B., San Francisco.
Cohn, Herbert J., San Francisco.
Barnett, George DeForest, San Francisco.
Kimberlin, Lester O., San Francisco.
Mehrtens, Henry George, San Francisco.
Crow, Lloyd Benj., San Francisco.
Catton, J. H., San Francisco.
Reed, A. C., San Francisco.
Langnecker, Harry L., San Francisco.
Hogan, J. J., Vallejo.
Falconer, E. H., San Francisco.
Means, Sam'l W., San Francisco.
Mardis, B. A., San Francisco.
Laughlin, C. B., San Francisco.
Evans, Newton Gurdon, Loma Linda, Cal.
Hoare, Harry J., Loma Linda, Cal.
Hill, H. G., Redlands.
Power, W. B., Redlands.
Trott, Leslie De Nyse, Loma Linda.
Baylis, J. N., San Bernardino.
Ruble, W. A., Loma Linda.
Herzer, Fred E., Loma Linda.
Kroll, Fred W., San Francisco.
Nottage, H. P., Oakland.
Cunningham, Ruby L., Berkeley.
Risdon, Ruth C., Berkeley.
Tralle, Geo. M., Santa Ana.
Lavery, Wm. A., Sierra City.
Burkard, Adrian F., Santa Barbara.
Brown, Fred A., Lompoc.
Pierce, Horace Fred'k, Santa Barbara.
Barbour, L. P., Rialto, Cal.
Wickett, Wm. H., Los Angeles.
Crawford, Jas. P., San Quentin.
Sullivan, Walter H., Sausalito.
Sweet, Carrol Lincoln, Elk.
Fisher, D., Merced.
Abrons, Harry, Napa.
Ogden, G. W., Napa.
McAuley, John, Santa Ana.
Robertson, H. M., Santa Ana.
Shook, Francis Marion, Oakland.

RESIGNED.

Yost, John Dixon, San Francisco.
McDonnold, P. E., Los Angeles.
Sawyer, H. C., San Francisco.

DEATHS.

Paterson, E. M., San Jose.
McDermott, W. P., San Francisco (died in Los Altos).
Koeberle, Theodore, Los Angeles.
Turnbull, Walter Lathrop (died in San Francisco).
Wilcox, N. J., Oakland, Cal.
Correction:—Dr. William Hayden Campbell is not deceased, as reported; is improving in health.
Stafford, Auren A., Alameda, Cal.
Hedgpeth, Wm. R., Paso Robles, Cal.
Wing, Elbert, Los Angeles.